In the
SUPREME COURT OF THE UNITED STATES

October Term, 1927

No. 2 Original

The State of New Mexico, *Complainant*,
v.
The State of Texas, *Respondent*

BRIEF ON BEHALF OF THE EL PASO COMMERCIAL COMPANY, FRED FREEMAN, HEMLY & RISHABERGER AND MRS. C. A. KERBER, AS AMICI CURIAE, IN SUPPORT OF COMPLAINANT'S PETITION FOR REHEARING.

STATEMENT

This brief is filed in support of complainant's petition for rehearing on behalf of the El Paso Commercial Company, Fred Freeman, Hemly & Rishaberger and Mrs. C. A. Kerber, as owners of land lying south of the 32d parallel and north of the south line of the Cantillo Grant and being located west of the Salazar-Dias river line (determined by this Court to be the boundary) and east of the line of the Texas surveys, which the Special Master has found to be the 1850 river line with accretions. These titles are based on

patents issued by the State of Texas. Taxes on this land have been paid to the State of Texas for many years and it is in a high state of cultivation.

As under the decision of this Court this land is held to be within the boundaries of New Mexico it will be readily seen that upon the granting or refusal of the petition for rehearing depends whether the owners of such land have good title to the same or those titles are absolutely void.

REPORT OF SPECIAL MASTER

The Special Master divides the patents issued by the State of Texas into three groups. These parties are concerned with the two groups lying between the 32d parallel and the south line of the Canutillo Grant.

With reference to this land the Special Master reports as follows (pp. 48-50):

> (1) The patents for lands lying between the 32d parallel and the north line of the Canutillo Grant, and extending south from that parallel a little over six miles. Most of these patents were issued between 1860 and 1873, and were based on Surveys made in the years from 1849 to 1873 (with the exception of the Marsh Survey made in 1881, and the Groesbeck Survey)—the Surveys being numbered 161, 162, 54, 281, 35, 34, 163 to 172, inclusive. The Maverick Surveys 161 and 162 (made by Anson Mills) were immediately south of the 32d parallel and were bounded on the west by the Rio Grande as it flowed in 1860. South of these were Surveys 35 and 34, with their western boundary on the Rio Grande as it flowed in 1849. South of Surveys 35 and 34 there were the Maverick Surveys 163, 164, 165, 166, 167, 168, 169, 170, 171, 172 (made by Anson Mills), extending south

erly in the order name (except 172, which was to the west of the others and bordering on the Rio Grande as it flowed in 1860). I find that within this latter group of Maverick Surveys, in 1858, their owner intended to include all the vacant land between Survey 34 and the Canutillo Grant, and to have a 'frontage on the Rio Grande.' (1) I find that the locations of Surveys 165 to 172, inclusive, can be now fixed, since in the resurvey of the Canutillo Grant by John P. Randolph, in 1886, the original southwest corner of Survey 171 was found and identified and its distance measured east to the railroad track. Consequently, I find that all of said surveys were in the river valley and west of the railroad. On the plaintiff's contention as to location of the river and of Clark's Monument No. 1, it would appear that a large part of all of the above surveys would be located in the sandhills above the river valley.

(2) The patent for the Canutillo Grant. This was a patent for land extending in a north and south direction between four and five miles, its northern boundary extending over one-third across the valley to the west (about a mile and a half) and with its southern boundary extending over two miles, practically the whole width of the valley. This land was a Mexican grant made in 1823; it was surveyed by Anson Mills in 1860, being Survey No. 173. (1) It was resurveyed by John P. Randolph and a patent was issued by the State of Texas, in 1886. The boundaries (except possibly the river boundary) contained in this patent can be substantially identified on the ground. It is certain that by far the greater part of the land patented was, in fact, located west of the location of the river claimed by New Mexico. Much evidence was introduced by the plaintiff to sustain its contention that the surveys, both by Mills and by Randolph, were incorrect and not in accord with

the boundaries set forth in the original Mexican grant. I find this evidence to be irrelevant, inasmuch as the surveys, whether they were or were not incorrect, did, in fact, lay claim to land in the valley bounded on the west by the Rio Grande as shown on the maps made by Mills and Randolph introduced in evidence by the plaintiff. It is possible that these surveys laid claim not only to all the land east of the river as contended for by the State of Texas but also to land lying west of the Rio Grande; and the plaintiff has introduced evidence to that effect. (1) But even if this were true, it would not alter the fact that the surveys did lay claim to the land as far west as the Rio Grande as it ran at the dates of the surveys. The question whether the surveys and the patent conformed to the original grant is only matter of controversy between the State of Texas and its patentee or other private claimants, and has no bearing upon the issue as to whether, in fact, the patent was issued for the land described and acted upon by the patentee accordingly.

Further on in his report (p. 54) he says:

On the above evidence (but without consideration of the Maps last above referred to), I find that, for at least thirty years while New Mexico was a Territory and prior to its admission as a State, the United States made no challenge of the claims to lands asserted by the State of Texas and by its citizens through surveys, patents, and locations, and that it, impliedly, at least, recognized the practical line that had been established as the boundary between the Territory and the State, so far as this line lay in the Rio Grande.

FINDINGS OF FACT OF SPECIAL MASTER

The Special Master finds as a fact:

1. That the true boundary line between the State of Texas and the State of New Mexico is the line of the Rio Grande River as established at the time the various surveys were made and patents issued.

2. That this line was tacitly recognized by the State of Texas and by the Federal Government during the period that New Mexico was a territory.

In this connection it is significant to note that the supplemental brief filed on behalf of New Mexico as well as the principal brief filed on behalf of Texas agree that the doctrine of accretion should apply in fixing this boundary.

DECISION OF THE COURT

This Court rendered its opinion on December 5, 1927, and decided as follows:

1. That the location of the Rio Grande as it flowed in 1850 from the parallel of 32 degrees north latitude to the International Boundary between the United States and Mexico was as found by the Special Master and substantially as contended for by the State of Texas.

2. That the Special Master erred in applying the recognized rules of accretion to the Rio Grande, so located, in determining the boundary line because the Court believed that the United States and Texas, before New Mexico became a State, had recognized as the boundary the river of 1850 without regard to changes by accretion.

CONCLUSION

Applying the above findings to the situation in which these parties find themselves, the Master's report determines that their property is situated within the State of Texas according to the boundary line recognized by the State of Texas and the United States for sixty years, but the Court in its decision has held that this property is situated within the limits of the State of New Mexico.

It is respectfully submitted that under either finding of fact by the Special Master the true boundary line is that determined by the Special Master and that a rehearing should be granted in this case in order that the decision may coincide with his findings.

The result of the decision of this Court is to invalidate all patents issued either by Mexico or the State of Texas to the land lying between these two lines. In the case of these parties it will result in a portion of their property being declared to be public land of the State of New Mexico and thrown open for acquisition in accordance with the laws of that state, regardless of any vested rights the present owners may have under what up to the present time had been regarded by the State of Texas and the United States as valid grants.

Respectfully submitted,

ARTHUR HELLER,

On behalf of the El Paso Commercial Company, Fred Freeman, Hemly & Risheberger, and Mrs. C. A. Kerber.

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IN THE

IN THE SUPREME COURT OF UNITED STATES

October Term, 1927

IN EQUITY
NUMBER 2, ORIGINAL

THE STATE OF NEW MEXICO, *Plaintiff*

versus

THE STATE OF TEXAS, *Defendant.*

SUPPLEMENTAL BRIEF REPLYING TO SEVERAL BRIEFS FILED BY THE STATE OF NEW MEXICO IN SUPPORT OF THE PETITION OF COMPLAINANT FOR A REHEARING.

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COMPLAINANT'S MOTION FOR REHEARING PRESENTS NO NEW ISSUE NOR DOES IT POINT OUT ANY FUNDAMENTAL ERROR OF THE COURT.

Complainant's original and supplementary motion for a rehearing attacks the conclusions of the Court, but points out no new principle of law not considered by the Court, nor is there advanced any new argument which would warrant a change in the Court's opinion. Complainant rests its cause for a rehearing solely upon the fact that the Court failed to follow the theories advanced in its pleadings and

briefs. A careful consideration of the grounds advanced for a rehearing discloses the fact that the grounds presented now in support of the motion for rehearing were fully presented in complainant's original briefs, and were orally argued before the Court. The petitions and briefs filed herein for a rehearing amount to nothing more or less than a re-presentation of the case and a reiteration of its arguments, all of which has heretofore, in the main briefs and oral arguments, been fully presented to the Court.

ACCRETION

The principle attack made upon the opinion of the Court centers around the question as to whether or not the doctrine of accretion applies to the boundary line in controversy.

In a brief filed by J. Harry Covington on behalf of New Mexico since the rendition of the opinion in this case, attention is called to the fact that this litigation started in 1913, and that as late as 1923, the State of Texas asserted in its brief that the boundary line in controversy was the middle of the main channel of the Rio Grande river as it existed in 1850, "subject, of course, to such changes as have occurred since that time through natural and gradual processes," citing pages 11 and 12 of the main brief for the State of Texas. The brief maker seeks to make a point out of the fact that as late as 1923 this contention was made, whereas the record dicloses that the case was filed in 1913 but for several years was not prosecuted by the State of New Mexico. The record further discloses that no delay was ever occasioned by the State of Texas.

The brief to which reference is made in 1923 was the first brief filed by the State of Texas, and was its main brief, which brief fully covered every phase of this case, but it must be within the knowledge of the Court that states act through elective officers, and while this case was filed by New Mexico in 1913 and was not followed up by that

State until many years thereafter, political changes brought into the office of Attorney General different officers from those at the time of the institution of this suit. One Attorney General plead the case, another Attorney General briefed it.

Now in regard to the contention of the brief filed by Mr. Covington on behalf of New Mexico in which he seeks to commit the State of Texas to an admission that the boundary line in controversy was the middle of the main channel of the Rio Grande River "SUBJECT TO CHANGES WHICH OCCURED BY REASON OF NATURAL AND GRADUAL PROCESS.' In seeking to bind the State of Texas by an admission in the brief, the brief maker overlooks entirely the pleading of the State of New Mexico, which pleadings assert positively that the boundary line in controversy was "FROM THE POINT WHERE THE THIRTY-SECOND PARALLEL OF LATITUDE INTERSECTED SAID CHANNEL IN THE YEAR 1850, AND AS THE SAME EXISTED AT THAT TIME, BECAME AND WAS THE WESTERN AND SOUTHWESTERN BOUNDARY OF SAID STATE OF TEXAS FROM SAID PARALLEL TO THE GULF OF MEXICO: AND THAT SAID BOUNDARY HAS REMAINED UNCHANGED TO THE PRESENT TIME." (Exhibit C of Record.) This position thus stated by the State of New Mexico was reiterated so often in the pleadings that there can be no doubt that New Mexico pleaded and sought to establish a fixed boundary. Texas accepted the issue as it was drawn by the State of New Mexico and by its pleading declared the boundary line to be "THE MIDDLE OF THE CHANNEL OF THE RIO GRANDE RIVER AS IT ACTUALLY EXISTED IN THE YEAR 1850." (Record, Vol. 1, page 20.)

It is frankly admitted that the brief maker for the State of Texas did declare the boundary line in controversy to be "SUBJECT TO CHANGES WHICH OCCURRED BY

REASON OF NATURAL AND GRADUAL PROCESSES," but this statement was in clear conflict with the pleadings of the case and the record evidence, and the position of the State of Texas in this regard was clearly and elaborately set forth in a subsequent brief filed by defendant in October Term, 1926, entitled "Exceptions of the State of Texas to the Report of the Special Master."

Without further encumbering the long record in this case and attempting to reiterate the arguments stated, we direct the Court's attention to the arguments contained in the brief above referred to. Nothing could be added here which is not contained in that brief.

Therefore, in view of the fact that every complaint of the State of New Mexico against the opinion of the Court has been fully presented, briefed and argued before the Master and before this Court, we deem it a useless consumption of valuable time to attempt additional arguments which, at most, would be a restatement of the record and arguments heretofore made.

We, therefore, most respectfully submit that complainant has presented no issue which justifies an additional answer and brief.

Respectfully submitted,

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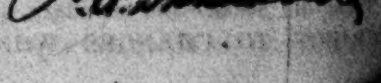

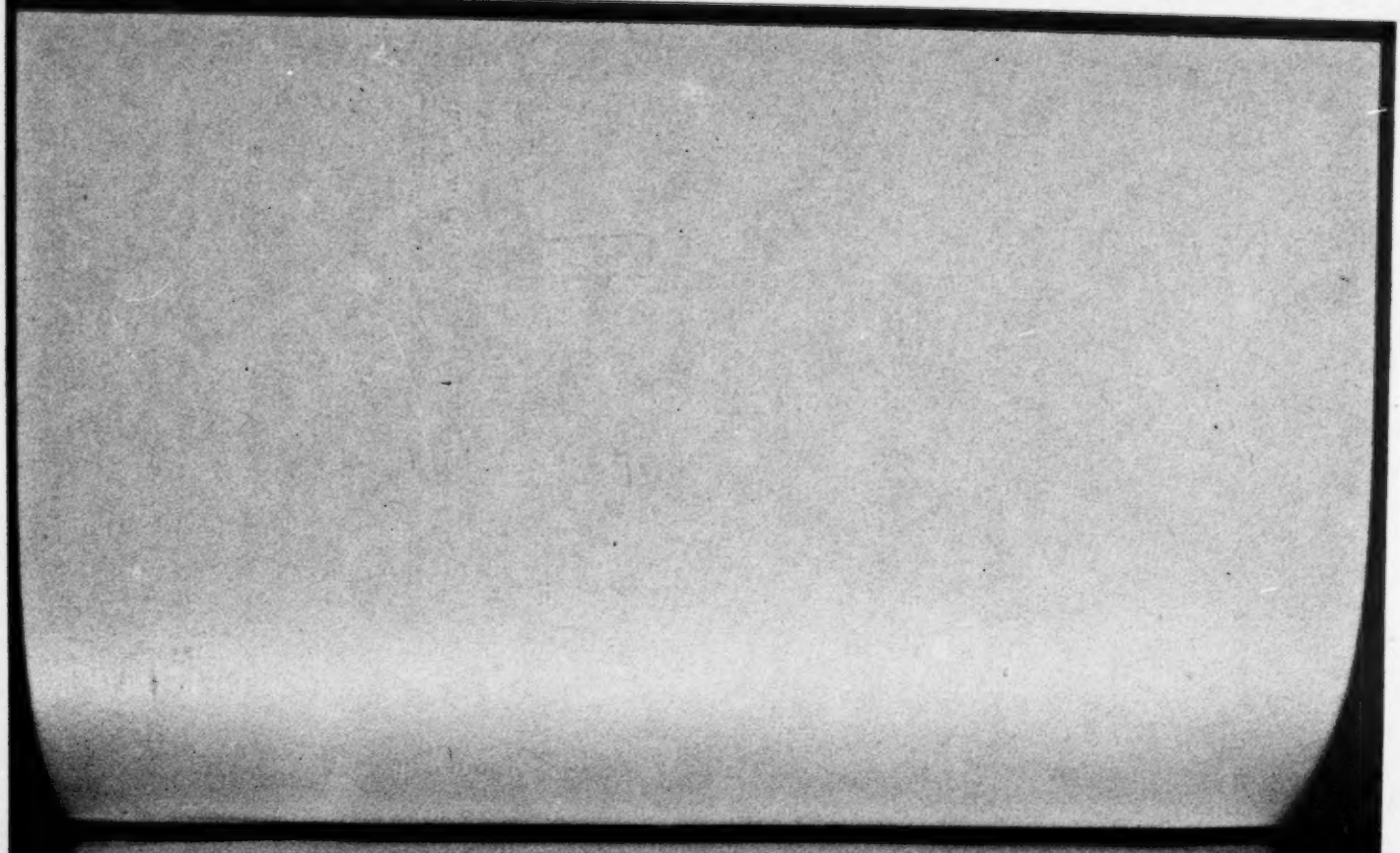

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1925

No. 3, Original

THE STATE OF NEW MEXICO, COMPLAINANT,

vs.

THE STATE OF TEXAS

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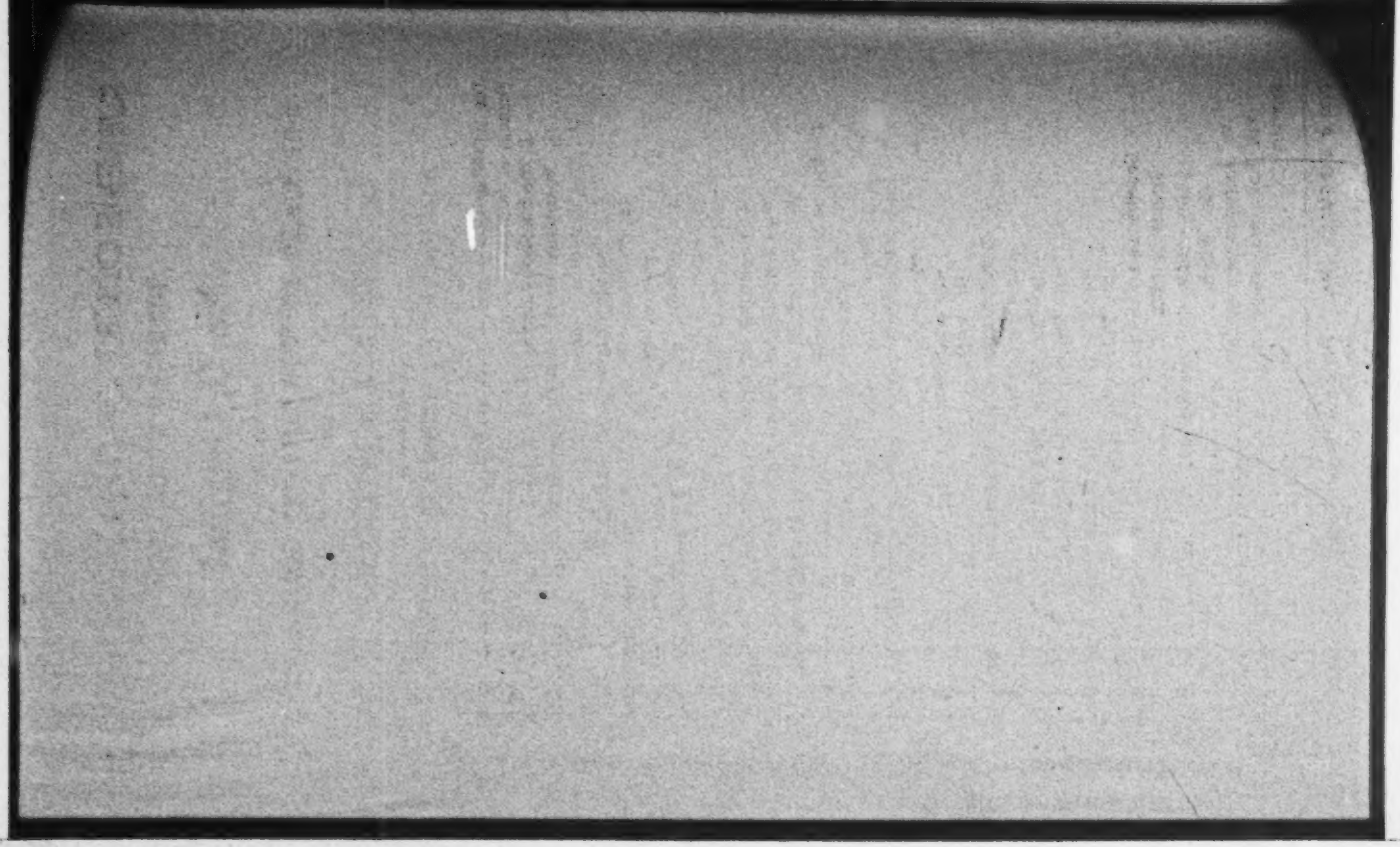

IN THE SUPREME COURT OF THE UNITED STATES

October Term, 1925

No. 3, Original

The State of New Mexico, Complainant,

vs.

The State of Texas

REPORT OF THE SPECIAL MASTER

To the Honorable the Supreme Court of the United States:

In the cause entitled The State of New Mexico v. The State of Texas, No. 3 Original, October Term, 1925, this Honorable Court appointed me as Special Master by its order, dated December 4, 1924, as follows:

"It is ordered that this cause be referred to Charles Warren, Esq., as a special master, with directions that he make special findings on all material questions of fact and report the same to the court with his recommendations respecting the decree to be entered. The master shall accord to the parties a full hearing on all questions in the cause, whether of fact or of law, and shall base his findings and recommendations on the entire record as heretofore made and printed, including the several documents and papers mentioned in the stipulations appearing in the record. When the master's report is received, the clerk shall have the same printed, and the cause shall then be set down for hearing before the Court on the findings and recommendations of the master and such exceptions thereto as may be presented by either State."

This order was amended by a supplemental order dated March 10, 1925, by adding the following: "The Master may in his discretion receive a brief of an amicus curiæ whom the Court has already permitted to file a brief in this cause."

Pursuant to the above orders, I, as Special Master, accorded to the parties a full hearing in the City of Wash-

ington in the District of Columbia, on dates agreed to by them, viz., May 11 to May 16, 1925, inclusive, (the hearings on each day lasting five hours), at which hearings the following counsel appeared and argued for the State of New Mexico, viz. Frank W. Clancy, Thornton Hardie, and Jay Turley, and the following counsel appeared and argued for the State of Texas, viz. Dan Moody, Attorney General of Texas, W. W. Turney, and W. A. Keeling. After the hearings, I received a brief from the amicus curiæ, L. M. Crawford, through his attorney Thornton Hardie, Oscar W. Underwood, Jr., of counsel.

Now, pursuant to the above orders, I herewith submit to the Court the report of my findings and recommendations.

CHARLES WARREN,
Special Master.

IN THE SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1925

No. 3, Original

THE STATE OF NEW MEXICO, Complainant,

vs.

THE STATE OF TEXAS

REPORT OF THE SPECIAL MASTER

THE PLEADINGS

This is an action brought by the State of New Mexico against the State of Texas, by a bill of complaint filed on January 31, 1913, to determine the boundary between the two States between the parallel of 32 degrees north latitude and the parallel of 31 degrees 47 minutes north latitude (the latter being the international boundary line between the United States and Mexico).

The bill alleges, in substance, that, under the provisions of and in accordance with the Act of Congress of September 9, 1850 and the Proclamation of the President of the

United States of December 13, 1850, the northern, western and southern boundaries of the State of Texas were fixed as follows:

"her boundary on the north shall commence at the point at which the meridian of one hundred degrees west from Greenwich is intersected by the parallel of thirty-six degrees thirty minutes north latitude, and shall run from said point due west to the meridian of one hundred and three degrees west from Greenwich; thence her boundary shall run due south to the thirty-second degree of north latitude; thence on the said parallel of thirty-two degrees of north latitude to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico."

The bill further alleges that thereby the channel of the Rio Del Norte (now known as the Rio Grande), from the point where the thirty second parallel of latitude intersected said channel in the year 1850 "as the same existed at that time," became and was the western and [illegible]thwestern boundary of Texas from such parallel to the Gulf of Mexico, and that "said boundary has remained unchanged to the present day;" that, under the Gadsden Treaty of December 30, 1853, between the United States and Mexico, the portion of the present State of New Mexico lying between the parallel of 32 degrees and the parallel of 31 degrees 47 minutes became a portion of the territory of the United States, and, by Act of Congress of August 4, 1854, became incorporated in the Territory of New Mexico, so that the channel of the Rio Grande between the above parallels, which, prior to the Gadsden Treaty had been the boundary line between the United States and the Republic of Mexico and also between the State of Texas and the Republic of Mexico, became and was the boundary between the State of Texas and the newly formed Territory of New Mexico, and "now is the boundary between the State of Texas and the State of New Mexico;" that the channel of the Rio Grande and the said boundary line following the middle of the channel were correctly represented on a map attached to the bill of complaint; that the Territory of New Mexico was admitted as a State into the Union under the Act of Congress of June 20, 1910 and the Joint Resolution of Congress of August 21, 1911, whereby, and in

accordance with the Constitution adopted by the State of New Mexico, the boundary of New Mexico ran (in part) from the junction of the one hundred and third meridian west longitude with the thirty second parallel north latitude, thence along said thirty second parallel to the Rio Grande as it existed on September 9, 1850, thence following the main channel of the river as it existed on September 9, 1850, to the parallel of 31 degrees 47 minutes; that, under a Joint Resolution of Congress of February 16, 1911, prior to the admission of the State of New Mexico into the Union, the President of the United States was authorized, in conjunction with the State of Texas, to reestablish and remark the boundary line between the State of Texas and the territory belonging to the United States, which had been established by John H. Clark as a boundary commissioner acting for the United States in 1859 and 1860 (such boundary line running, in part, from the intersection of the Rio Grande with the thirty second parallel and thence east on said parallel); that under the Joint Resolution of Congress of August 21, 1911, the admission of New Mexico as a State was to be "subject to the terms and conditions" of the Joint Resolution of February 16, 1911; that under the Joint Resolution of February 16, 1911, the boundary was so reestablished and remarked and monuments were set; but the bill avers that Monument No. 1 on the thirty second parallel (i. e., the monument nearest the Rio Grande) was relocated more than 3,000 feet west of the Monument No. 1, as originally set by Clark. The bill further averred that the State of Texas had attempted to assume and exercise jurisdiction over, and had made grants, conveyances, patents and surveys of, land lying west of the channel of the Rio Grande "as it existed in the year 1850" between said parallel of 32 degrees and the parallel of 31 degrees 47 minutes; and it prayed that "the middle of the channel of the Rio Grande as it existed in the year 1850," and as shown upon the map attached to the bill of complaint marked Exhibit C, be decree to be the true boundary line.

The State of Texas filed an answer and cross bill; and there were appropriate subsequent pleadings by both parties. It is unnecessary to recite these pleadings in detail, as they raised a very simple issue. The State of Texas

admitted that the boundary, in 1850, between that State and the Republic of Mexico, south of the parallel of 32 degrees north latitude, was the Rio Grande "as it in the year 1850 existed, and thence with the channel of said river to the Gulf of Mexico;" it admitted that, after the Gadsden Treaty of 1853, the boundary line between Texas and the Territory belonging to the United States known as New Mexico was the channel of the Rio Grande as it existed in 1850 between the parallel of 32 degrees and the parallel of 31 degrees 47 minutes; it denied that the map attached to the plaintiff's bill of complaint was a correct delineation of the boundary line; and it alleged that such boundary line was correctly shown and delineated on a map marked Defendant's Exhibit A attached to the answer and cross bill. It further alleged that the relocation of the Clark boundary line made under the provisions of the Joint Resolution of February 16, 1911, and the relocation of Monument No. 1 thereunder, were accurate and that the line as so relocated was the correct boundary between the State of New Mexico and Texas and was binding upon the State of New Mexico, so far as the line along the thirty second parallel was concerned. It denied that it had exercised or assumed jurisdiction over any land "lying to the west of the channel of the Rio Grande as it existed in the year 1850," between the parallels in question; and it prayed that "the middle of the channel of the Rio Grande as it actually existed in the year 1850" and as shown on the map attached to its answer and cross bill be decreed to be the true boundary line.

Under these pleadings, it will be noted that each party agreed that the boundary line was the middle of the channel of the Rio Grande as it actually existed in the year 1850. They differed, however, as to the true location of this channel in that year (as reference to their respective maps will show). The State of New Mexico located the channel in an almost straight line along the extreme eastern margin of the river valley. The State of Texas located it about in the middle of the valley for the northern half of the disputed territory, and along the western margin of the valley for most of the southern half.

Examiners were appointed by this Court to take testimony; and oral and documentary evidence were introduced by the parties at hearings held in Texas and otherwise over

a period of years, from November 10, 1913 to November 26, 1918, when the taking of evidence was closed.(1) Thereafter, on April 14, 1924, on motion of the State of New Mexico, this Court entered an order allowing the State of New Mexico to take additional testimony of a specified witness and the State of Texas to introduce rebuttal to such testimony; and such testimony was duly taken, May 5 to June 20, 1924. L. M. Crawford was allowed by the Court to file a brief as amicus curiæ. The record consists of over 4,000 printed pages and 195 exhibits, including 41 maps, 65 photographs; and over 100 field notes, surveys and land patents. Briefs were filed by the parties and by the amicus curiæ, of 2150 printed pages.

The Court in following the evidence as to the locations of the river claimed by the parties respectively and as to the various geographical points and surveys testified to, will find it most convenient to refer to the plaintiff's map attached to its bill of complaint, and to the defendant's map known as Texas Map No. 3, Defendant's Exhibit No. 65, Record 3373.

FINDINGS OF FACT

I

The Historical Source of the Dispute

It is due to a curious historical accident that the location of the river which constitutes the boundary line between these two States was not settled many years ago; and, because of a singular episode in United States history, this Court is now called upon, seventy eight years after the end of the war with Mexico, to decide what was the boundary line, in 1850, between the two nations—the United States and Mexico; for in deciding that international boundary line, it will determine the boundary between the two States, now in litigation.

Article Five of the Treaty of Guadelupe Hidalgo of February 2, 1848 established the boundary line between the

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(1) A stipulation as to admission of evidence was also entered into by the parties, November 10, 1913 (Record 40).

United States and Mexico as the deepest channel of the Rio Grande (otherwise called the Rio Bravo del Norte) from the Gulf of Mexico "to the point where it strikes the southern boundary of New Mexico; thence westward along the whole southern boundary of New Mexico (which runs north of the town called Paso) to its western termination. * * *;" and it was specifically provided that the southern limits of New Mexico (i. e., the State of New Mexico in Mexico) were to be those laid down on a map of the United States made in 1847 by J. Disturnell, copy of which was attached to the Treaty. It was also provided that each Government should appoint a Commissioner and a Surveyor who should meet "and proceed to run and mark the said boundary in its whole course to the mouth of the Rio Bravo del Norte."

Under this Treaty, after the appointment and removal of one Commissioner and failure to qualify by another, John R. Bartlett was finally appointed as Commissioner on the part of the United States, in June, 1850, and A. B. Gray as Surveyor. On the part of Mexico, P. Garcia Conde was appointed as Commissioner and Jose Salazar y Llarregui as Surveyor. As the southern boundary of the Mexican State of New Mexico was to become the northern boundary of the Republic of Mexico and the southern boundary of the United States, it was natural that the first question considered by the Joint Commission was the determination of the point where the Rio Grande intersected the southern boundary of New Mexico according to the Disturnell map. On April 24, 1851, it was agreed that this intersection was the point where the Rio Grande crossed the parallel of 32 degrees 22 minutes north latitude. This point, termed the Initial Point, placed the southern boundary of the Mexican New Mexico near the town of Dona Ana, over forty miles north of the town called Paso, referred to in the Treaty (i. e., El Paso del Norte, the present Mexican City of Juarez, opposite the present El Paso). The Joint Commission thereupon ordered that the line should be run down the Rio Grande south from the Initial Point; and at a meeting on September 7, 1851, it was agreed that the survey should be under the direction of the United States Chief Astronomer (then Col. Graham), with whom the Mexican Surveyor and Chief Astronomer should cooperate. These two Astrono-

mers conferred on November 24, 1851, and signed an agreement in detail as to the method of the survey of the river. Meanwhile, Major W. H. Emory was appointed to succeed Col. Graham as United States Astronomer, and to succeed A. B. Gray as Surveyor; and he took charge of operations at El Paso, November 28, 1851. Finding that a survey which had been made of the river under direction of Col. Graham from the Initial Point south as far as Presidio del Norte was unsatisfactory, Emory ordered a resurvey of the river from the Initial Point to Frontera, the latter place being located at the southern end of that portion of the valley which is in dispute in the case at bar. This resurvey, which was made by his assistant surveyor, Charles Radziminski, was finished prior to October 8, 1852, and was contained in "a dozen sheets of protracting paper," on a scale of four inches to the mile. Major Emory reported to the United States Commissioner John R. Bartlett, February 14, 1853, that all the work (including the Radziminski Survey) "had been examined by himself or by an officer of topographical engineers and may be considered as admissible." United States Commissioner Bartlett, in his Personal Narrative (published in 1854) stated that the Radziminski Survey was "executed in a highly satisfactory manner and accepted as the official survey."(1)

[It may be noted, at this point, that this Radziminski Survey was not introduced in evidence; and counsel for both parties stated, during the trial and at the hearing before me as Master, that, after investigation and research, its present existence could not be ascertained. It was also admitted by counsel for both parties that this Radziminski Survey, if found and introduced in evidence, would practically settle the issue in this case, as being a survey officially made by the United States of the Rio Grande between the parallels of latitude involved in this case. Accordingly, after the hearings before me as Master, I felt it my duty to the Court to make an independent search personally in Washington for such Survey; and I requested the Departments of State, War and Interior that special searches should be officially made in their respective files. Such searches were made by the Departments; but neither

(1) See Record 2243, 2249, 2331.

the Survey nor any map, plat, plan or field notes by Radziminski could be found in the files in Washington.]

Meanwhile, surveys of the Rio Grande were made by the Mexican officials, under direction of Salazar, the Mexican Surveyor and Astronomer, who had also become Commissioner; and it was agreed between Emory and Salazar, that they should meet at Presidio del Norte on August 1, 1852 "to sign the maps down to that point, and make final arrangements for the completion of the work below." (It may be noted that from the Initial Point on the Rio Grande to Presidio del Norte, following the meanderings of the river, was at least 300 miles.) At this meeting, which took place on August 26, 1852, Emory stated that Radziminski had not completed his map from the Initial Point to Frontera but would do so in a few days; and Salazar stated that he had received maps of the Mexican survey between those points. On August 27, 1852, at their meeting it was found that the astronomical determinations of the latitude and longitude of Frontera on the maps of the respective Governments differed; and Major Emory stated that the maps were "not as correct as they should be, and not in a condition to be signed;" but he thought it probable that it was "altogether owing to the imperfect means possessed in the field of projecting maps." Thereupon, both officials agreed to a proposition made by Major Emory that it was "impracticable to make finished or correct maps of a survey of great extent for signature in the field," and that "notwithstanding the surveys of several portions of the Rio Grande from the initial point to its mouth have been completed," there should be another survey in detail of certain portions, including the Rio Grande from the initial point to Frontera by both Commissions, and of other portions by one Commission only.

Events now arose which put an end to the necessity of any further survey by either the United States or Mexico of the Rio Grande from the Initial Point to Frontera. It was charged in Congress and elsewhere that the American Commission, headed by Bartlett, had made an inexcusable and disastrous blunder in agreeing to fix the Initial Point so far north as Dona Ana at the parallel of 32 de-

grees 22 minutes.(1) Other sources of dissatisfaction with Commissioner Bartlett's work also arose; Congress refused to continue the appropriation for the completion of his survey; and on December 24, 1852, the Commission was disbanded.(2)

Negotiations were begun for the purchase by the United States of territory south of the Initial Point; and these resulted in the conclusion of a new treaty with Mexico, December 30, 1853—the Gadsden Treaty—ratified June 30, 1854. By this Treaty, Mexico ceded to the United States territory west of the Rio Grande at 32 degrees 22 minutes and south to a point on the Rio Grande at 31 degrees 47 minutes; and the boundary between the United States and Mexico running west from the Rio Grande at the latter point was also altered (in a way not involved in this case). The result was that, whereas, prior to June 30, 1854, the west bank of the Rio Grande between these parallels was Mexican soil and the Rio Grande itself an international boundary, after this Treaty the soil on the west bank was in the United States and was incorporated into the Territory of New Mexico and the river became a domestic stream. Accordingly, after June 30, 1854, it became unnecessary to finish the maps and surveys provided for by the original Treaty of Guadelupe Hidalgo or to establish the location of the river, so far as it ran between these parallels. Under the Gadsden Treaty, Major W. H. Emory and Salazar were appointed Commissioners respectively for the United States and Mexico to fix the point of intersection of the Rio Grande with the parallel of 31 degrees 47 minutes, and also to survey and establish the new line from said point west to the Pacific. By January 10, 1855, the new Initial Point had been fixed and the two Commissions began the work of surveying the line west.

On or about August 20, 1855, the survey under the Gadsden Treaty was completed by the respective Commissioners, after an examination of the notes, maps, etc.; and at a meeting of the Joint Commission, the line under the Gads-

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(1) Record 2257-2261; for history of the dispute, see Annual Report of the Secretary of the Interior, December 4, 1852, 32d Cong., 2d Sess., Appendix (not introduced into evidence).

(2) Record 2288; 32d Cong., 2d Sess., Senate Document No. 41, report of Bartlett to Secretary of Interior, Feb. 7, 1853; 33d Cong., Special Session, March, 1853, Senate Document No. 6 (not introduced in evidence as a whole).

den Treaty was officially agreed upon. At a meeting of the Joint Commission in Washington, June 25, 1856, it was "resolved and agreed upon":

"that these maps and views, duplicate copies of which will be made—one to be deposited with the United States, the other with the Mexican Government—shall be the evidence of the location of the true line, and shall be the record to which all disputes between the inhabitants on either side of the line, as to the location of that line, shall be referred and it is further agreed that the line shown by these maps and views shall be regarded as the true line, from which there shall be no appeal or departure."

At a meeting of the Joint Commission, September 21, 1857, the following vote was entered on the Records (see original Joint Journal of the Mexican Boundary Commission on file in the Department of State, but not introduced in evidence):

"The Joint Commission met in pursuance of agreement, and Senor Salazar stated that his Maps were finished and ready for signature. Major Emory, having stated that his were also ready, and the two Commissioners, having previously examined and compared these maps and found them to agree in all essential matters appertaining to the Boundary, proceeded to sign them. So that the maps signed today and those signed July 3d, 1857, complete the whole series from the mouth of the Rio Bravo to the Pacific Ocean. The Commissioners think it proper to state that in many details along the Rio Bravo in topography, and in latitude and longitude, there are small differences, the legitimate result of scientific operations performed under difficult circumstances. These differences are explained by notes on the Maps, but they in no way affect the Boundary Line."

The maps thus referred to included, as stated in the above vote, not merely the maps and result of the survey made under the Gadsden Treaty, but also the maps and result of the surveys made prior to 1853, under the Treaty of Guadelupe Hidalgo, so far as related to the Rio Grande boundary line from its intersection with parallel 31 degrees 47 minutes and south to the Gulf of Mexico.

Such being the situation as to the surveys of the international boundary, the action of Congress as to the boundaries of Texas and of the territory acquired from Mexico was as follows. Texas was admitted as a State into the Union by the Act of Congress of September 9, 1950, c. 49 (9 Stat. 446)—The famous Clay Compromise Law of 1850—which provided that the boundaries of Texas should run (in part) due south to the thirty second degree of north latitude, "thence on the said parallel of thirty two degrees north latitude to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico." The international boundary line between the United States and Mexico as then existing was thus recognized as the southwestern and southern boundary of Texas. Under the same Act, the Territory of New Mexico was established, with part of its southern boundary running from the main channel of Rio Grande east along the thirty second parallel; and by the Act of Congress of August 4, 1854, c. 145 (10 Stat. 575), there was incorporated into such Territory, after the Gadsden Treaty, the area acquired under that Treaty lying between the parallel of 32 degrees 22 minutes and the parallel of 31 degrees 47 minutes and lying west of the Rio Grande. The Rio Grande, which thus became the eastern boundary of this part of the Territory of New Mexico, was the Rio Grande as it had existed as the international boundary between the United States and Mexico, prior to the Gadsden Treaty; but the location of the Rio Grande, at that date and between the parallels above referred to, had not then been fixed by any survey agreed upon by both the United States and Mexico. Moreover, at that date, 1854, there had been no official survey by the United States of the southern boundary of the Territory of New Mexico east along the thirty second parallel; and as that boundary was also part of the northern boundary of the State of Texas, Congress, by the Act of June 5, 1858, c. 92 (11 Stat. 310), ordered such a survey; and John H. Clark (who had been on the Emory Surveys under both the Treaty of Guadeloupe-Hidalgo and the Gadsden Treaty) was appointed United States Commissioner, Astronomer and Surveyor. He began his survey (in company with a Commissioner appointed by the State of Texas) at the intersection of the thirty second parallel with the Rio Grande,

January 26, 1859, having first run a meridian north from Frontera by triangulation and direct measurement. He placed his Monument No. 1, on the line and described it in his official report as follows:

"1. Initial point, a pyramid of stone 8 feet high, whitewashed, with inscriptions on all sides. It stands 600 feet from the bank of the river, and between them lies the road from El Paso to Fort Fillmore."

It thus appears that the location of the east bank of the Rio Grande in the year 1859 at its intersection with the thirty second parallel was 600 feet west of Clark's Monument No. 1. Clark completed his survey by the middle of the year 1860; and the line as surveyed by Clark was confirmed as the boundary between the Territory of New Mexico and the State of Texas by the Act of Congress of March 3, 1891, c. 542 (26 Stat. 971) and the Joint Resolution of Texas of March 25, 1891 (Gammel's Law, Vol. X, p. 195). Nineteen years later, an Act to enable the people of New Mexico to form a Constitution and a State Government was passed by Congress, June 20, 1910, c. 310 (36 Stat. 557); and under this Act the people of New Mexico adopted a Constitution, January 21, 1911, article I of which set forth the boundaries of the new State as follows:

"The name of this State is New Mexico, and its boundaries are as follows: Beginning at the point where the thirty-seventh parallel of north latitude intersects the one hundred and third meridian west from Greenwich; thence along said one hundred and third meridian to the thirty-second parallel of north latitude; thence along said thirty-second parallel to the Rio Grande, also known as the Rio Bravo del Norte, as it existed on the ninth day of September, one thousand eight hundred and fifty; thence, following the main channel of said river, as it existed on the ninth day of September, one thousand eight hundred and fifty, to the parallel of thirty-one degrees, forty seven minutes north latitude; thence west one hundred miles to a point; thence south to the parallel of thirty-one degrees, twenty minutes north latitude; thence along said parallel of thirty-one degrees, twenty minutes, to the thirty second meridian of longitude west from Washington; thence along said thirty-second meridian to the thirty-seventh parallel

of north latitude; thence along said thirty-seventh parallel to the point of beginning."

Congress, by the Joint Resolution of February 16, 1911, No. 6 (36 Stat. 1454), provided that this proposed Constitution should be construed "so as not in any way to change or alter the said boundary lines known as the Clark lines;" it provided that the former ratification by the United States and Texas in 1891 "shall be held and deemed as conclusive location and settlement of said boundary lines," and that the Clark lines "shall remain the true boundary lines of Texas and New Mexico;" and it further provided for the appointment by the President of a Commissioner (jointly with the State of Texas) "to reestablish and remark the boundary lines heretofore established and marked by John H. Clark between New Mexico and the State of Texas" (so far as respects this case) "west with the thirty second degree of north latitude as determined by said Clark to the Rio Grande."(1)

New Mexico was admitted into the Union as a State by the Joint Resolution of Congress of August 21, 1911, No. 8 (37 Stat. 39), its admission being made subject to the terms and conditions of the Joint Resolution of February 16, 1911 as to the Clark lines, and also subject to its compliance with the terms and conditions of the Resolution; and proclamation of such compliance was made by the President of the United States on January 6, 1912 (37 Stat. 1723).

Under the Joint Resolution of February 16, 1911, the so-called Scott-Cockrell Commission was appointed by the President and by the State of Texas, which proceeded to relocate and reestablish the Clark boundary lines. It made its report April 5, 1912. Owing to the fact that it had been unable to find any ruins, evidence, or trace, upon the ground, of the location of Monument No. 1, (which Clark had erected 600 feet from the intersection of the thirty second parallel with the Rio Grande), the Commission reestablished that Monument No. 1 by scaling its position as shown on Clark's Map No. 1 accompanying his report of his survey; and the Commission made a supplementary re-

(1) For an account of the reasons for this Joint Resolution, see Senate Report No. 940, 61st Cong., 3d Sess.; Message of President Taft, December 21, 1910, House Document No. 1076, 61st Cong., 3d Sess.

port as to that Monument, February 20, 1913.(1) The President, by Executive Order No. 716 of February 25, 1913, approved, confirmed and established the findings, conclusions, and acts of the Scott-Cockrell Commission.

To this extent, the boundary line between New Mexico and Texas on the thirty second parallel had been settled by the action of the United States Government; but it had never been settled from the thirty second parallel south along the channel of the Rio Grande to the International Boundary Line, by any official United States boundary survey.

In this condition of affairs as to its boundary on the Rio Grande, New Mexico became a State on January 6, 1912, and about a year later, January 31, 1913, it instituted the present suit.

II

Description of the Rio Grande Valley

A general preliminary description of the locus is as follows:

The Rio Grande, in New Mexico, was held by this Court to be a non-navigable river in 1899; see United States v. Rio Grande Dam and Irrigation Company, 174 U. S. 690, 699:

"Obviously the Rio Grande within the limits of New Mexico is not a stream over which in its ordinary condition trade and travel can be conducted in the customary modes of trade and travel on water. Its use for any purposes of transportation has been and is exceptional, and only in times of temporary high water. The ordinary flow of water is insufficient."

Beginning at a point called Frontera, north of the present El Paso (Franklin in 1850), the valley of the Rio Grande extends for over forty miles north to Fort Fillmore (built

(1) Clark's report was never published until extracts from it and from his correspondence, and his field notes and maps were published in 1882 as Senate Document No. 70, 47th Cong., 1st Sess. The maps so published were on a much reduced scale. From the phraseology used by the Scott-Cockrell Commission in its report, it is uncertain whether they scaled from the original map made by Clark or from the printed reduced copy (see Record 3179). But as the original map cannot now be discovered in the files in Washington, it is probable that the Commission scaled from the reduced copy.

about 1852), to Mesilla (settled in 1850), and to Dona Ana (a town settled about 1840). It was described, in 1854, by John R. Bartlett (formerly the United States Boundary Commissioner) as follows (Record 2339-2341)(1):

"Above this point (Frontera), the valley remains in its natural state. Some lands were plowed and sown in 1851, but the water failed and with it the crops. At Fort Fillmore, about forty miles above El Paso is the next settlement. Between this and Frontera, there is a broad alluvial bottom, of great richness * * * the bottom land does not appear for some distance beyond the observatory or White's Rancho. * * * On the immediate banks of the river are cottonwood trees, but none elsewhere. * * * A large piece of bottom land has just been ploughed up and put under cultivation by Mr. Magoffin about twelve miles above Frontera, the only cultivated spot between El Paso and Cruces, a distance of nearly forty miles."

It has also been described in various Government documents which have not been introduced in evidence, but of which I assume that the Court may take judicial notice.(2) In 1855, in a report of Captain John Pope, it is said:

"With the exception of the limited strip between Franklin and Molina, the immediate valley of the Rio Grande is between two to five miles in width and perfectly level, and the river traverses it from side to side in many sinuosities. These level bottom lands can be readily irrigated from the river. * * * The immediate valley of the river from Dona Ana to Frontera contains about 128,000 acres of arable land."

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(1) Personal Narrative of Explorations and Incidents in Texas, New Mexico, Sonora and Chihuahua connected with the United States and Mexican Boundary Commission during the years 1850, '51, '52, and '53, by John R. Bartlett, published in 1854.

(2) Report of Exploration of a Route for the Pacific Railroad near the thirty second parallel of latitude from the Red River to the Rio Grande, by Brevet Captain John Pope, Corps of Topographical Engineers, House Document No. 129, 33d Cong., 1st Sess., in 1855, (page 44).

Reports of Explorations and Surveys to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean made under the direction of the Secretary of War in 1853-6, Senate Executive Document No. 78, Vol. III, 33d Cong., 2d Sess., report of T. Antisell, page 16.

Water Resources of the Rio Grande Valley in New Mexico, and their Development, by Willis T. Lee, Department of the Interior, United States Geological Survey, Water Supply and Irrigation Paper No. 188; reprinted as House Document No. 73, 59th Cong., 2d Sess., pages 7, 8.

In 1854-1855, Thomas Antisell, the geologist of the Parke Expedition, wrote in his report:

"The valley bottom, through which the Rio Grande rolls, is made up of alluvium and the finer detritus of the upper country, and varies in breadth from less than two miles in places, to nearly six. Through this, the river meanders in a serpentine and not always constant channel, changing its banks so as to encroach yearly some feet occasionally on either side, and carrying suspended a large quantity of mud of a fine reddish tint, derived from the reddish sandstone and fine felspathic clays. After freshets, the waters of the Puerco and Galisteo carry down large amount of mere silicious matters which are sometimes strewed by overflow upon the lower and fertile bottoms of the valley to the injury of its productiveness; the variability of the current and the body of water carried down leads to a continual shifting of the bed of the river, rendering the fording of the river unsafe, except at points which are rarely the same in different years. * * * The soil of the valley everywhere is porous and saturated with the waters of the river which give it thus a remarkable fertility. Cottonwood is the only timber on the bottom. * * * The valley preserves the same fertility and general appearance from Dona Ana down to El Paso."

In 1907, a report issued by the United States Geological Survey described the valley as follows:

"The valley is a part of the semiarid region of the southwestern part of the United States, in which the rainfall is insufficient for agriculture without irrigation. A comparatively small amount of the water derived from the mountains to the north sustains a small but permanent flow in the river in the northern part of the region, but this water gradually disappears and the river bed in the southern part is often dry. The Rio Grande is essentially a storm-water stream, subject to great and sudden floods. * * * The rainfall in the region occurs principally in the form of violent showers or 'cloud-bursts', which fill the dry stream courses with turbulent floods of short duration. When these showers occur simultaneously in many part of the region, they cause more or less destructive floods in

the river. For these reasons the fertile irrigable lands along the river are sometimes unproductive for want of water and at other times crops are ruined because the fields ars submerged or irrigation ditches destroyed by floods.

Much of the diminution in the volume of flow downstream is due to the fact that a large part of the water of the river sinks beneath the surface into the porous material of the valley bottom. Many of the tributary stream courses that are dry where they join the river contain flowing water in their upper reaches, the water sinking beneath the surface when it reaches the detrital material of the valley."

The Rio Grande, west of the city of El Paso and beyond a place called Molino, makes a sharp turn to the north and runs through a small canyon or gorge. North of this canyon is the Courchesne bridge. A little over a mile above this bridge, on the east side of the river, is the spot called Frontera. The valley is about a mile in width at Frontera, and it spreads gradually as it goes north, until at the 32d parallel it is between four and five miles in width. The distance from Frontera to the 32d parallel in a straight line north is 12.93 miles, and by the river at least 15 miles. About five miles above Frontera on the east side of the valley, is a place now called Montoya (not in existence in 1850), a little below which is a point much testified about by the Indian witnesses and termed by them, Durasnito.(1)

At Montoya, the river valley is about three miles wide. About two miles above Montoya is New Canutillo.(2) Between these two points, a Texas land grant, the Canutillo Grant, stretches almost entirely across the valley west to the line of the river contended for by the State of Texas. Two and a half miles north of New Canutillo is the place now called Vinton (not in existence in 1850). Between the two places, there was a stretch of country called by some witnesses Uranguena. North of Vinton were two locations testified to by Indian witnesses as La Bruja and Tres

(1) This point is also mentioned in Texas survey 157 (Record 3310) as "near the foothills at what is known as the 'Durasnito.'"

(2) About two miles south of New Canutillo (11,500 feet, see testimony of Post, Record 1877), is the location of a house and small ranch testified to by Indian witnesses as existing in 1850-1860, called Doroteo Salado's, and a place called Canutillo Viejo (Old Canutillo).

Alamos. Three and a half miles above Vinton is the town of Anthony, situated at the 32d parallel and at the northern boundary of Texas and the southern boundary of New Mexico. On this east side of the valley, there is a gradual sandy and gravelly slope away from the river, varying from five to thirty feet above the river valley, and extending for half a mile to a mile and a half before reaching the steeper hills. This slope (termed by some "ladera") was more or less covered with brush. From the steeper hills (or foothills) the ground rises into the Franklin Mountains.

On the west side of the valley, the banks rise more abruptly in high sandy bluffs and a somewhat high mesa, from which a rolling tableland extends west. Southwest of Frontera, and of the river, and situated in Mexico, is Muleros Mountain, whose prominent peak rises 1,200 feet above the plain, and which can be seen from all the country round, and from which the country can be seen up to the 32d Parallel.(1) Nearly due west of Frontera and White's Ranch is a group of high jagged rocks known as Piedras Paradas,(2) from which to the north, on the west side of the valley, is the Santa Teresa Hill, jutting out into the valley; other high bluffs occur about half way up the valley, known as Alto de Cuarones, and the Cobrena, a high tongue or point of land jutting out into the valley. Between three and four miles south from the 32d Parallel on the west side is the town of La Union situated above the river valley. A little over a mile south from the 32d Parallel, located in the valley itself and over a mile east from the western margin of the valley, was the old town of Amoles, which was destroyed by flood in 1860-62.

In 1850, there were two roads up the valley—one on the west side and one on the east—the former known as the Amoles or Paseño Road, the latter as the Fort Fillmore Road. The location of these roads is in controversy between the parties to this case. Travellers going north from the American town of El Paso or Franklin could take a road through the mountains to a point near Frontera and go up the Fort Fillmore Road; travellers going north from the

(1) See photograph, Plaintiff's Exhibit No. 59, facing Record 3123; Defendant's Exhibit No. 73 (Record 3338).

(2) See photograph, Plaintiff's Exhibit No. 2, Record 3094-95, and see Owen's comments on the photograph, Record 2627-2628.

Mexican town of El Paso del Norte could go along the south and west bank of the river until they reached a point known as Vado de Muleros, opposite the stretch from Frontera to the present Courchesne Bridge, and there they could ford the river and proceed on the east side up to Fort Fillmore, or they could continue north along the west bank of the river and on to Amoles, and thence to Mesilla. After 1857, a stage line was operated from Franklin (El Paso) north to Fort Fillmore on the east side; and at about 2,000 feet north of the 32d parallel, there was a stage station (Scott's) near the bank of the Rio Grande, at a point called by Indian witnesses, Alamitos (the location of which point in an east and west line is in controversy). In 1881, the Santa Fe Railroad constructed its line down the east side of the valley, its tracks in some places lying east of the margin of the river plane and on the low sand hills, and in other places lying in the river plane itself. The eastern side of the river valley, as surveyed by plaintiff's engineers in 1913-1914, was found to be generally lower than the western, varying at different points from north to south where the levels were taken. At some points in 1913, however, the river was flowing on or near the highest level of the valley. In ordinary times, the channel of the river is very shallow, with banks two or three feet high. The average fall per mile is from 3 to 5 feet as testified to in this case.

III

The Plaintiff's Evidence

The evidence introduced by the plaintiff tended to prove that, from 1850 to 1860, the Rio Grande flowed in the following course down the eastern margin of the valley. Beginning at the 32d parallel, about 600 feet from the present railroad track in the town of Anthony; thence south with a pronounced bend to the west; thence bending back to the east towards a point called Tres Alamos (about 1½ miles below Anthony); thence running straight along the eastern margin of the valley for about a mile to a point called La Bruja; thence running towards the west in a long bend (called Uranguena); thence bending back to the east to New Canutillo—a place about six miles south of Anthony; thence running in an almost straight line towards the southeast

and close to the eastern margin, past various spots known as Canutillo Viejo, Doroteo Salado's house, Durasnito, Angela Vale's Ranch, White's Spur, and old lime kiln, to White's old ranch house and the spot known as Fronteras; then continuing southeast past the Vado de Muleros (a ford) to the Courchesne Bridge, then through the Canyon to the International Boundary Line. The river, as so testified to, did not follow the indentations or curves to the east made by the low sand hills of the margin of the valley, but ran in a comparatively straight line by them, forming an arc to a series of bows.

In proof of the above, the plaintiff relied upon a map (attached to its bill of complaint as Exhibit C, and termed by me in this Report, the Pleading Map), together with field notes of a survey (made in 1912) of the Rio Grande as it ran in 1850; also upon the testimony of civil engineers in support of this survey; also upon the testimony of numerous witnesses as to their recollection of the course of the river in 1850-1860, and as to their identification (in 1912-1914) of the river's channel. The plaintiff also introduced in evidence many photographs, and also several Texas surveys and a survey of the 32d parallel, together with testimony of civil engineers as to the location of these surveys.(1)

(1) The Pleading Map and the Post Survey

The Pleading Map and the survey on which it was based were prepared in the following manner.(2) On September 16, 1912, Charles L. Post, a civil engineer, witness for the plaintiff, accompanied by ten men of Indian or Mexican descent and also by Colonel Eugene Van Patten, made a trip down the east side of the valley, starting at a place two thousand feet north of the 32d parallel. There, the witnesses pointed out to Post a spot which they called Alamitos; thence the party proceeded south and pointed out to Post the location of the river bed as it ran in 1850 past the town of Anthony, also the location in that town of the

(1) Although the parties to this case filed a bill and a cross bill, I have, for convenience, referred throughout this Master's Report to the State of New Mexico as the plaintiff and to the State of Texas as the defendant.

(2) See Plaintiff's Exhibit No. 19, Record 1788; Plaintiff's Exhibit No. 17, Record 1765-1778.

road from El Paso to Fort Fillmore; thence the party proceeded south, down what the witnesses pointed out as the bed of the old river. Post set stakes in accordance with the information given to him by the witnesses, asking them to indicate each bend of the old river as they came to it, and setting a stake to mark it. In this manner, the party continued down the eastern margin of the valley, the witnesses pointing out the location of the places which appear on the Pleading Map, also the location of the Fort Fillmore road. The party crossed and recrossed at various points the present existing railroad track, and existing county roads. Near the place called New Canutillo, the witnesses identified the then (1912) course of the river as being its course in 1850. Arriving at the Courchesne Bridge, the witnesses proceeded up the west side of the valley, and pointed out the places named on the Pleading Map.

Based on the information thus given, and guided solely by the location as pointed out by these witnesses, Post, in October and November, 1912, made his survey as testified to by him as follows (Record 1833, 1764):

"Q. How did you preserve on the ground, to show that you had afterwards made the survey, any record of the information which these people gave you?

A. As I stated before, all along the river line, at the different bends that they indicated, I set two by two stakes, four feet long, driven into the ground about a foot, and took note of the location—what it meant and what it located.

Q. As you set those stakes, did you put numbers on them at that time?

A. Yes, sir.

Q. When you made the subsequent surveys, did you find all the stakes in place?

A. Yes, sir; all of the stakes were in place at that time.

Q. After you completed that survey, what did you do next?

A. After I completed the survey, I made a map. I located the railroad track. I surveyed the present river. I surveyed the hills—that is the line of the hills on each side of the valley. That is the line at the foot of the hills—so as to locate the hills and locate the railroad, and the bridges across the Rio Grande, and the different points that they had pointed out. On those surveys I made the map.

Q. Is the map which was attached to and filed with the bill of complaint in this case a reproduction of that map which you made?

A. Yes, sir.

Q. And does that map correctly show the results of your work, about which you have told us?

A. Yes, sir."

The survey and the Pleading Map so made on information can be accepted as evidence of the location of the river, only to the extent that such location is supported by testimony on oath of the witnesses at the hearings in this case, or by other competent evidence. Of the ten men, on whose information the survey and Pleading Map were based, only four testified at the hearings; (one had died prior to the hearings, and the remaining five were not called by the plaintiff as witnesses). In addition to these four, however, there were other Indian or Mexican witnesses who testified at the hearings as to the location of the river, and who had accompanied the plaintiff's engineers (Post and William P. Steen), together with Col. Van Patten, in trips down the valley, after September 16, 1912 and up to February 8, 1914. Post and Steen, in their testimony, give the names of 54 men whom they took on trips to identify the course of the 1850 river. Of these, it appears that Post took 24, of whom 10 later testified at the hearings and 14 did not testify; Steen, in addition to Post's list, took 30 men, of whom 18 later testified at the hearings and 12 did not testify. In addition, there were 17 who testified, but who were not specifically named by Post or Steen. Of the total of 71 men, therefore, who were taken down the valley to identify the 1850 river, there were 45 who testified at the hearings, and 26 who did not. Post testified that all the men (non-witnesses, as well as witnesses) who accompanied him over the ground agreed upon the location of the river as pointed out to him by his first group of ten men, and upon the location of the river as placed by him upon the Pleading Map (Record 1839):

"Q. But as to the location of the river, there was a unanimous verdict between the members of the first group and all subsequent groups, who ever accompanied you?

A. Yes, sir; upon the location of the river.

* * * * * * *

Q. And never at any time, as to any point, was there any doubt on their part, or any difference of opinion, at any point as to where the river ran in 1850?

A. Not that I remember of. They may have had conversation, but all concluded that the river was located at the place pointed out.

Q. You say they all concluded it?

A. Well, they all agreed."

It is difficult to believe that 71 Indians and Mexicans, making their statements in 1912, 1913 and 1914, could all agree exactly as to what was the location of a river in the year 1850 (or from 1850 to 1862), for a distance of thirteen miles, especially in view of the ages, in 1912-1914, of the witnesses who testified. According to the Plaintiff's Brief, Vol. II, Part One, page 805, (some of the witnesses being very doubtful, themselves, as to their age), it appears that 12 of these witnesses were seventy years old or under, so that they must have been very young in 1850; 9 of the witnesses were from 80 to 100 years old; and 24 others between 75 and 80 years old. And there is direct testimony of at least one witness that some of the men who went with the plaintiff's surveyors could not locate the river. Thus, Longino Mestas testified as follows: (Record 501-502):

"Q. Near what point was it, then, that you found the old channel?

A. What I said was that I showed the place where the river run formerly to the Commissioners.

Q. Near what point that you knew to have existed, in the old times, did you find the channel of the river?

A. In all the places from Alamitos to here. I did not wish to say anything to them. It did not matter to me, either way, but when I came here under oath, I tell the truth. I told them I did not know anything, but since I saw that a good many of those that they brought along did not know anything, then I told them that if they wished I would show them where the Piedras Paradas were, and the house of White.

Q. Which ones of the witnesses did not know where the river ran?

A. Two or three, which came from Dona Ana.

* * * * * * *

Q. Did Benavides know about the river?

A. I think so. * * *

Q. The older one did not (Leandro Benavides) know about it?

A. The old one, no. He is very, very old.

Q. He did not remember about it?

A. He did not remember the places.

Q. Did Don Eugenio (Patten) walk along with you?

A. In portions he did, and in other portions he went in a wagon. * * *

* * * * * * * *

Q. He could tell you all about it, couldn't he?

A. He could not tell me. He did not know. He did not know even where he was. He was not showing the places to anybody.

Q. He did not know the country in the early days, then?

A. I say he may have known it, but very poorly, from what I could see."

(2) Testimony of the Plaintiff's Witnesses Conflicting with the Map

I find that whether all the witnesses did or did not agree upon the location of the River in 1850 when making their statements to Post and Steen, their testimony at the hearings showed marked differences and discrepancies. Practically all of them agreed in testifying that, in general, the river from 1850 to 1862, flowed on the east side of the valley "leaning against the hills" (to use a phrase employed by a majority of the witnesses) "right against the hills," "close to the hills," etc.(1); but they differed widely as to the details of the location of the river, particularly as to the location of its bends, the size of its bends, the distance

(1) The plaintiff has placed great reliance on the fact that all of its witnesses have testified that the river of 1850 "leaned towards the hills," "turned to the east," "ran to the east." It should be noted, however, that these expressions are not entirely incompatible with the location of the river as claimed by the defendant. For the river runs, in fact, for the most part, in a south-easterly direction. At least one of the plaintiff's witnesses clearly showed that he regarded the course of the river as being east. Thus, Faustina Acuna testified, "I understand it runs towards the east, down; down towards the east;" and when asked: "Why did you remember that the river always turned to the east?" replied, "Because when we went up the river on the side where the sun sets, the river always

to the river from places located by them on its bank, and their testimony in numerous instances cannot be reconciled with the plaintiff's Pleading Map.

It would impose an unnecessary burden upon the Court to point out these variances in the testimony of each witness. I call the Court's special attention, however, to the testimony of the four witnesses on whose statements, made on the original trip in 1912, the Post survey and Pleading Map were based—Juan de Dios Sais, Faustina Acuna, Florencio Lucero and Jose Garcia. The first of these testified that on his original trip, he only went with Post south from the 32d Parallel as far as Canutillo Viejo, i. e., only about half way down the valley. He testified that at La Bruja, the river was about 600 yards distant; that there was a valley road at La Bruja to the west of which was an estero (or slough or lagoon) of from 150-200 varas wide (i. e., 420-545 feet); and that there was a road in the valley above Durasnito, located between the river and an estero.(1) This testimony is irreconcilable with the Map, and with Post's testimony. Acuna testified that when he first knew the river the Uranguena was "farming land and bosque," and that he did not remember that there was any other bend in the river except the Uranguena. The Map shows another large bend to the north.(2) Lucero (a witness on whom Post stated he relied to a considerable extent) testified that below New Canutillo, there were two branches of the river, one towards the west and the other towards the east, and that these two branches did not come together again. He further testified as to two bends in the river between Durasnito and White's House; also that there were two wagon roads between White's ranch and Alamitos, one in the valley and one on the hills. He further testified, on cross examination, that in the early days the river flowed by Cobrena, Corral de Tapia, the rancho of Luis Barrio and the Piedras Paradas (all of which

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ran down hill towards where the sun rises." And again, on being asked: "If White's old ranch was south of Alamitos, then which way did the river run?" he replied, "I think to the east." (Record 847-849) Juan Albillar also testified that the river from Alamitos ran "all the time to the east" (Record 1102) clearly meaning, however, south. Nestor Albidres, who rafted logs down the river, testified, "I always travelled on the river leaning more towards the east than to the west." (Record 796.)

(1) Record 330, 369, 370, 375-376, 382, 384. Post's testimony, Record 1887.

(2) Record 845, 865.

are on the west side of the valley), although on redirect examination, he changed this testimony and stated that it was after the destruction of Amoles, in 1862-1864, that the river ran on the west side.(1) Garcia testified that the river, in 1850, ran straight from Alamitos (i. e., north of Anthony), without bends, all the way to Tres Alamos; that there was no bend in the river above La Bruja; that the Uranguena bend was not a large bend; that the river was "very far" from White's House; that the river formed a bend to the west above White's House above the lime kiln.(2)

From the above statements, it appears that each one of the four witnesses contradicted the Pleading Map in important details.

There are many variations from the Map in the testimony of the other witnesses who traversed the course of the river after the Map had been made. The most striking are found in the statements of at least nine witnesses who testified that at Durasnito (or between Durasnito and White's ranch) there was a large bend in the river to the west, and that the river was "very crooked," "ran like a snake."(3)

Such testimony was utterly irreconcilable with the Pleading Map which shows the river as running in an almost straight line to the south from Durasnito, without any large bend to the west.

Clear and substantial variations from the Pleading Map and inconsistencies with it were also disclosed in the testimony of witnesses at the hearings, with respect to the course of the river from Alamitos through Anthony and down to the point where the Uranguena Bend begins, with respect to the location of the Uranguena Bend, and to the distances from the 1850 river of various points named on the Pleading Map.

I find, therefore, that either the witnesses on the various trips did not all agree as to the location of the river of

(1) Record 1072, 1073, 1074, 1083, 1080.
(2) Record, 1483, 1486, 1489.
(3) See testimony in the Record of R. Marquez (249); C. Lucero (419); E. Parra (144); S. Albidres (908); M. Colmenero (97); see also testimony of William P. Steen (2966); C. Lopez (170); N. Albidres (765, 769, 797); P. Benavides (1194); S. Gonzales (1414), see his sketch; V. Minjares (1352), see also testimony of Steen (2045).

1850, or else the witnesses gave testimony at the hearings, diverse from the statements made by them to Post and Steen, when they accompanied the latter on their trips.

(3) Testimony of the Plaintiff's Witnesses in General

Omitting all testimony of witnesses which is inconsistent with the Pleading Map drafted by Post, there still remains a large mass of testimony, which, if it be credited, would sustain the location of the river as contended for by the State of New Mexico. The weight, value and credibility of this testimony, however, depends largely upon the circumstances under which it was obtained and was given. Most of the witnesses were illiterate; they were unable to estimate distances with any degree of accuracy, in terms of varas (a vara being about 33 inches), feet, yards, or miles; many used only the terms "far" or "near" to express their views of location of the river and other objects. All the witnesses were old men, some very old, and some were only ten years of age or less at the date when they passed along the river between the years 1850 and 1860. There was much evidence that in those years the country was wild and infested with hostile Indians, so that those who travelled on horseback or in wagons from El Paso to Fort Fillmore, Dona Ana and Mesilla were frequently on the lookout for attack, and paid little attention to anything else; for as one witness said: "Life does not come up again." Many of the witnesses travelled part of the time at night. From White's Ranch to Alamitos, there was but one, if any, house prior to 1857. The names given by the witnesses, therefore, to points along the river with relation to which points they located the river in 1912-1914, referred to bends, hills, bosques, esteros, cottonwood trees, etc. There was no stage coach route prior to 1857. Many of the witnesses had not travelled along the river since the Civil War; and only a few claimed to have had any continuous knowledge of the river. The plaintiff's counsel has stressed the point that, since many of these witnesses were travelling for the purpose of going to El Paso for the great religious feast days which occurred in March, August, and December, their trips would have been particularly enforced on their minds; but there was nothing in these fiesta dates to enforce recollection of any particular year. Some

witnesses attempted to fix a definite year with respect to their knowledge of the river, by reference to the date of the raising of the American flag at Mesilla, in 1854, after the Gadsden Treaty; but many witnesses were very hazy as to years.

Moreover, most of the whole river plane or valley had been altered in condition since 1850-1860. In those years, it was uninhabited, uncultivated, and covered in many parts near the river with thick bosques (groves or forests) of cottonwood and tornillo trees. The witnesses testified that the land, in 1912-1914, was considerably settled and cultivated; the town of Anthony had come into existence; there were farms, cornfields, and alfafa fields, paved roads and a railroad, in many places where they located the bed of the old 1850 river.(1) Sostenes Gonzales in answer to the question: "Did the building of the railroad and completing the paved wagon road change the appearance of the country any?" replied: "As different as the difference between heaven and earth. It is changed a great deal where the railroad is now." And Juan Albillar testified:

"Q. But without the aid of some persons, could you now locate the old river bed and points of some sixty odd years ago?

A. No, sir. I think that I could not.

Q. Everything is changed, the channel of the river, and the points of the hills, and the whole situation is now changed?

A. Everything.

Q. Nothing looks as it did when you first saw it?

A. No sir.

Q. The railroad has been built?

A. It was, places there, that everything is different."

Juan de Dios Sais testified:

"Q. And since you first knew the river above White's Ranch and up to Dona Ana, a great many changes have occurred in that river?

A. Many, and it changes every time that the river rises.

(1) See especially the following testimony in the Record: Mariano Colmenero (103); Dionicio Parra (1147); Dolores Alejo (1175-1176); Juan Marquez (1260, 1264, 1266); Juan Apodaca (1317); Jesus Arvizu (1022); Sostenes Gonzales (1413); Juan Albillar (1108); Juan de Dios Sais (376).

Q. It changes some every year or two—it has changed some every year since you have known it?

A. I believe it has changed. At every rise, it moves to different places."

It is well known that the Rio Grande, as has been wittily said in Johnsonian language, is a river "with anfractuosity of temper and uncertainties of habits." In many years, at the time of annual floods which occurred from May to September from melting snow in the mountains to the north and from heavy rains or cloudbursts, the river covered the whole valley from its western to its eastern margin. When the floods subsided, the river at times resumed its former channel, and at times it did not. There was an avulsive change in 1862-1864 to the west, for a part, at least, of the river course; and it swung back in 1884. As testified by Van Patten, as plaintiff's witness: "It was changing backwards and forwards in '64 to '84 and I think in 1904 or 1906. Those were raises in the river, and they changed the whole face of the river every time it came down;" "it has changed backwards and forwards a great many times. It has been doing that ever since." "Since '64, it has been changing backward and forward all the time." Moreover, as testified to by plaintiff's engineer witness, Post: "There are old river beds or indications of old river beds in various parts of the valley, extending in a southerly direction through the valley. The map that I have made as indicating the location of the old river bed shows the river bed of 1850 as pointed out to me by witnesses. If I had started out to survey old river beds throughout the valley, I would not be through surveying yet." He further stated that in surveying throughout the valley, he had seen old water courses and river beds as distinct and more distinct than that claimed by the witnesses to be the River of 1850.(1)

The river has always carried and deposited large quantities of silt, mud and other detritus. At times of flood, many old channels were filled with deposits and their presence effaced. The river valley, at places, notably above White's Ranch, has been raised in level many feet. The Santa Fe Railroad has been obliged to raise its railroad

(1) Testimony of Van Patten, Record 630, 646, 647; Post, Record 1852, 1950, 1955.

bed several times, and in doing so has, at places, excavated from the sandhills at the east.

In describing the manner in which they located the river in 1912-1914, the witnesses testified that they walked along depressions, low ground, old channels, etc., which they pointed to Post and the surveyors as the bed of the River of 1850, according to their recollection; that this bed, as a rule, showed banks not more than two or three feet high; but in some places five feet; that for a considerable distance, at various points, the bed of the old river was then occupied by the railroad tracks, by the county road, and by the river as it flowed in 1912-1914. Many of the witnesses (except those who went in the first party with Post before he made his survey), testified that, before they made their trips, the channel of the old river had been outlined by the surveyor's stakes. Several witnesses said that they followed the stakes; and one said that the "surveyor asked us if these were the places, and I told him yes, there is where the river used to run"; although he also said that he "could find the ruins of the river, where it used to run because I remember them very well."(1)

Under all the conditions outlined above, I consider it improbable that Indian and Mexican witnesses would be able to trace accurately, on the ground, the course of a river as it flowed over fifty to sixty years prior. As entirely applicable to the situation, I quote the brief filed before me as Master by Thornton Hardie as attorney for the amicus curiæ (Crawford) but who is also counsel for the plaintiff, and who stated (p. 11) as follows:

"When Owen went into this country, it was a wilderness. Its topography is now very greatly changed, due to the development of the valley, which was accompanied by grading, filling in, and road building (Ad. Test. pp. 10, 11, 40), as well as the washing of sand from the foothills already mentioned. The difficulties at the present time, which must be encountered by persons, even those who years ago were familiar with the valley, in locating an old river channel, in the face of the changes made by nature and man, are at once apparent."

(1) Record, 928, 936, 937, 1181.

(4) Location of Alamitos

I find particularly doubtful and difficult of belief the identification by the witnesses of the spot called by them, Alamitos. As this spot is the initial point from which they began their location of the old river, special consideration of the testimony seems necessary. Undoubtedly, there existed, in that year, a point on the east bank of the Rio Grande known as Alamitos. This point is probably the same as the station on the El Paso and Fort Yuma Road termed "Cottonwood (ranche)," 22 miles distant from El Paso, referred to in the Report of the Secretary of the Interior in 1858; also probably referred to in John H. Bartlett's Personal Narrative, in 1854, as a place where they "encamped in the Alamos or cottonwoods, twenty-eight miles from El Paso."(1) Prior to 1857, this was a camping place or watering place for horses and cattle of travellers on the road, with possibly a small ranch or pole hut located there. After 1857, it became a stage station called Scott's, with an adobe house without rock foundation, and a corral, located near the riverbank, and near a number of large cottonwood trees. Such being the facts, the question arises how dependable is the identification of the spot, as made by the witness in 1912-1914. The four (out of the party of ten on whose statements the Pleading Map was constructed) testified, in general, to the facts that they remembered a camping or watering place near the river in 1850-1860 on the road to El Paso where there were then a number of large cottonwood trees and where there was a stage station (Scott's) after 1857; and that they now (in 1912) found at this place a cottonwood tree and an apparent old river channel; and that from these facts they identified the spot as the place which they formerly knew as Alamitos.(2) Similar testimony was given by the other witnesses who made trips after the original party, and who based their identifications on the presence at this spot, in 1913-1914, of a cottonwood tree and an apparent old river

(1) See Texas Surveys No. 35 and 34, made in 1849 (Record 3237, 3241); see also House Document No. 108, 35th Cong., 2d Sess., page 99; Bartlett's Personal Narrative (Record 2340, 2341).

(2) Testimony in the Record of Juan de Dios Sais (327-328); Faustina Acuna (835-836, 862), Jose Garcia (1482, 1483, 1508); Florencio Lucero (1070).

channel which they claimed to recollect as one of the trees and the river existing in 1850-1860. (There were five who made the somewhat improbable statements that they saw the ruins of the Scott Station still existing, in 1913, which aided them in identification of the spot, one even stating that he saw remains of manure from old corrals there.)(1)

As stated above, numerous old river channels may be found in existence throughout the valley. Cottonwood trees were abundant in the valley in 1850-1860. The tree shown on the photographs (Plaintiff's Exhibits, No. 1, 7, 8, 9, Record 3094, 3098) seems unlikely to have been in existence in 1850-1860. Its identification now as one of the trees growing then seems impossible. The flat and undistinguished topography shown in the plaintiff's photographs makes it highly improbable that, without any further objects to assist the memory, witnesses could identify a spot there, after a lapse of fifty years or sixty years. One of the witnesses on being shown a photograph (Exhibit No. 7), and asked what it was replied: "It may be the same place. I cannot tell definitely from the picture because the whole country used to be covered there." (Record 977); another witness said that he had first seen Alamitos in 1853 when he was eight years old and many times after 1856, and that in 1913 "from the very moment I saw the place, I remembered it, as I had been there many times;" but doubt as to the value of his testimony, and that of others is cast by his description of the method employed by Col. Van Patten (who had charge of the witnesses) in securing their identification of the locality (Record 919-920):

"Q. Sunday morning, where did they take you?
A. We went to Alamitos.
Q. What did you go for?
A. To find out if I could show the surveyor the place where Alamitos was.
Q. How did you know that was the purpose?
A. Because they told me so, themselves.
Q. Who told you?

(1) Testimony in the Record of Felipe Madrid (43, 53); Mariano Colmenero (89, 90, 113); Eligio Perea (132, 133, 143); Cornelio Lopez (157); Margarito Lujan (174); see also Record 213, 223, 260, 408, 429, 512-515, 521, 1007, 1126-1127, 1190-1191, 1283, 1546-1547, 1591-1592, 1961, 1962.

A. Don Eugenio Van Patten told me. He asked me if that was the place that I knew before, and I said yes.

Q. He took you to a certain place, and said, "Is this the place you knew to be Alamitos?"

A. Yes, sir.

Q. And he showed you what he thought to be a river bed, and asked you if that was the river bed that you knew?

A. That it was so. That I had known it before."

(5) The Fort Fillmore Road

An important detail affecting the plaintiff's contention was the location of the road which led from El Paso up the Rio Grande north, past Alamitos to Fort Fillmore, Mesilla and Dona Ana; and as to this, there was much variance and discrepancy in the testimony of the witnesses. At least six testified that this road ran up the valley on the east side and through the river plane.(1) Many others, including Van Patten, testified that the road went along the sand hills on the eastern bank and not in the valley. Many others testified that they went up on the hills on the road when the water was high, but that when the river was dry they would come down to the bottom land, at least at places. The location of the old road in the present town of Anthony was pointed out as being about 130 feet west from the present railroad track. There are references to this road in contemporary documents. Thus, in the Report of the Secretary of the Interior, December 2, 1858, 35th Cong., 2d Sess., House Document No. 108, pp. 9, 77-85 (not introduced in evidence), N. H. Hutton Engineer, in reporting on the El Paso-Fort Yuma Wagon Road, stated:

"The old road leaving El Paso at the lower end of the Gorge of the Rio Grande passed for seven miles through these narrows over the rolling rocky spurs of the Organ Mountains and debouching thence proceeded up the wide valley of the river, over an elevated bottom, well timbered and with light clay and sand soil. Crossing near Fort Fillmore to the right back of the river, it passed through the town of La Mesilla."

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(1) See C. Lopez (Record 166, 171-172; R. Marquez (240, 251); C. Barela (264, 288); Juan de Dios Sais (332, 369-370); T. Arvizu (1013); F. Lucero (1071, 1074), a witness on whom Post, the plaintiff's engineer, stated that he relied to a considerable extent (1870).

And Albert H. Campbell, Superintendent, stated:

"Beginning at Franklin opposite El Paso, the road proceeds up the valley on the east side of the Rio Grande touching the river at convenient points for water, crosses it near La Mesilla and continues up the valley on the west side to the Picacho."

John R. Bartlett in his Personal Narrative, published in 1854 (supra p. 16) containing his journal of a trip from El Paso to Dona Ana states that he camped "in the Alamos or cottonwoods, twenty eight miles from El Paso" on April 19, 1851, and that on April 20:

"moved from camp at 7 o'clock, and continued our journey along the bottom. Whenever we approached the river, there were more trees, fine groves of large cottonwood with occasional mesquite marking the valley. The road is excellent, and continues so without any repairs, except after rains, when it becomes almost impassable. At such times, wagons pursue a course lying at a distance from the bottom, and over the edge of the gravelly plateau which is never affected by rains. The soil of the whole valley or bottom of the Rio Grande, is not surpassed for fertility, in the world. One thing alone is lacking to render it at all times productive, namely, water. For the want of this, a large portion of this rich bottom is destitute of grass, and has but little shrubbery."

In 1850, Anson Mills (a Texas surveyor, who was born in 1834 and later became a Major General in the United States Army, also United States Commissioner on the International (Water) Boundary Commission, surveyed the largest tract of land in the valley—the Canutillo Grant. In the same year, he surveyed almost all the land lying to the north of that Grant, and during the next fifteen years he made surveys in the valley south of that Grant. He was, therefore, familiar with the locality. In 1886, he certified to a map or plat as being "Original Plat of my Survey of the Grant of land known as El Canutillo made by me at the time I surveyed the land."(1) The plat shows a road up the valley west of the eastern foothills, as well as west of

(1) See Defendant's Exhibit No. 15, Record 3222 red numbered pages 5503-5504; Plaintiff's Exhibit No. 65, Record 3149.

the river as claimed by New Mexico. It would appear that this map was made in 1860; but even if it was made in 1886, and only represented Mills's memory in 1886, I am of opinion that the recollection of the topography of 26 years previous by a surveyor of 52 years of age who had actually worked all up and down the valley, is better to be trusted that the recollection of aged Indians of the topography of 50-60 years previous. It would appear, therefore, that although there may have been a road on the east side which went up over the hills and was used by travellers when the river was in flood, the main road went up the valley bottom east of the river, and that the existence of such a road there is incompatible with the location of the river as claimed by New Mexico.

(6) Testimony of Eugene Van Patten

In addition to the Indian witnesses, the plaintiff relied largely on the testimony of Colonel Eugene Van Patten, who had been Sheriff and County Judge of Dona Ana County and Registrar of the United States Land Office, in New Mexico. The defendant contended that Van Patten cannot be considered as a wholly disinterested witness, since he was employed by the State of New Mexico to secure witnesses who had knowledge of the old river, and to accompany them under his charge over the disputed territory and to elicit their evidence. Prior to 1913, he had been employed by the persons interested in the Santa Teresa Grant (and as will be noted infra, p. 52, it is claimed by the owners of that Grant that its limits would be enlarged if the contention of the plaintiff in this case be sustained). Van Patten testified that he knew the river in 1857-58, when he became, at the age of eighteen, conductor on the first stage route from El Paso to Fort Fillmore. He served in that capacity thirteen months. In 1861, he entered the Confederate Army. Later he was a chief of scouts, hunting Indians. After 1864, his chief experience seems to have been with the west side of the valley, but he evidently had familiarity with the valley in general. In his testimony, taken at great length and in great detail, he located the course of the old river as practically identical with that shown on the Pleading Map; he modified his testimony on

cross and re-cross examination and again changed it on re-direct examination on several material points; in some points, his testimony is at variance with that of the Indian witnesses; in others, his memory is clearly defective. As a whole, however, he supported the plaintiff's contention as to the location of river of 1850.

(7) Credibility of Plaintiff's Witnesses

In view of all the evidence in the case, I am unable to attach great weight or credit to the testimony of the plaintiff's witnesses as to the location either of the bed or of the course of the Rio Grande as it flowed in 1850. It may, however, be noted that as to the northern section of the river, i. e., from the 32d parallel to the north line of the Canutillo Grant, the testimony of the witnesses is, to a certain extent, compatible with both of the locations of the river in 1850 contended for by plaintiff and defendant respectively; for it will be noted by examination of the maps (especially of Defendant's Exhibit No. 65, Record 3373) that the river course in that section, as alleged by each party, ran east of the centre of the valley, and with the same bends and general outline, the chief difference being that the river as claimed by Texas ran about a mile to the west of that claimed by New Mexico (and in some places only about one quarter of a mile). The witnesses, testifying after a lapse of fifty to sixty years, might easily be mistaken as to the distance of such a river from the eastern margin of the valley. But as to the southern section of the river, i. e., from the north line of the Canutillo Grant to Frontera, there can be no reconciliation of the testimony of the plaintiff's witnesses with the location of the river as contended for by Texas; since the latter alleged a river running across the valley and down its western margin, over two miles to the westward from the New Mexico river which ran straight down the eastern margin.

I do not consider that the testimony of the witnesses was intentionally untrue; but I am of opinion that their memories were defective, and especially that they were mistaken as to dates, and that they confused the course of the river as they knew it in later years with their knowledge

of it in earlier years.(1) If not so mistaken as to years, it is apparent that many of them were testifying as to the river (between 1850 and 1860) at those periods of the year when the river was in flood and may well have been flowing along the eastern as well as the western banks. There is also evidence in the case as to the existence on the east side of the remains of an old river channel of 1826, which had left long sloughs or esteros at various points; also as to the existence of old ditches dug at Alamitos, Anthony, and from Old Canutillo to a point far south.(2) In 1886, when Randolph resurveyed the Canutillo Grant, he placed in his plat or map a "running slough" down the east margin of the valley almost precisely in the position claimed by the plaintiff for its River of 1850 (see Plaintiff's Exhibit No. 67, Record 315); and in a map (not introduced in evidence) prepared by the engineer of the International (Water) Boundary Commission in 1889 (referred to in detail, infra p. 83) there is a similar slough (with water) down the eastern margin. It is probable that the river, subsiding from floods, at times ran in these sloughs, esteros, or ditches, as a minor channel or branch, and that it was thus mistaken by some witnesses for the main channel of the river.

(8) The John H. Clark Survey on the 32d Parallel

The plaintiff contends that the location of the old river bed at the thirty second parallel made by its witnesses was strongly corroborated by a reestablishment of the stations and monuments of the John H. Clark line and survey of 1859, which the plaintiff's engineers, Post, Steen and Jay Turley claimed to have made. (See also testimony of Thomas R. Owen and A. M. Randolph, surveyors.) At least

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(1) Cf. Indiana v. Kentucky (1890) 136 U. S. 479, 518: "All the testimony is to be taken with many allowances from imperfect recollection, from the confusion by many witnesses of what they saw with what they heard, or of what they knew of their own knowledge with what they learned from the narrative of others."

(2) See testimony of Florencio Lucero (Record 1095); Julio Rivera (307, 312-313); Jacinto Perea (359-360, 362); Juan de Dios Sais (375, 376-382, 383). As to ditches, see Jose Garcia (1498, 1547, 1508, 1510); Claro Lucero (391, 409-410); Florencio Lucero (1077); Dolores Alejo (1174); Trinidad Benavides (1574, 1583-1584); Valentin Abalos (1705-1706); Pedro Alejo (1981); Juan Albillar (1113-1114) 1121); Eugene Van Patten, 649, 666-667.

430 pages of the record are devoted to this subject. I shall state the contention as briefly as possible. Clark, in his Report and in the field notes and maps accompanying it (printed, in 1882, as Senate Document No. 70, 47th Cong., 1st Sess.), set forth the stations from which he took his angles, the monuments which he located on the 32d parallel (describing them in detail), and the astronomical observatories from which he took observation on the stars to ascertain latitude; he also marked on his map the location of the monuments and of the observatories.(1)

The plaintiff's first contention was that the Scott-Cockrell Commission, in 1911-1913, had made a mistake in relocating Clark's Monument No. 1, and by so doing had placed the east bank of the Rio Grande of 1859 three thousand feet too far to the west; this error, it alleged was due to the fact that when the Commission attempted to fix the location of Monument No. 1, by scaling its distance from Monument No. 4, as shown on Map No. 1, reproduced in Clark's printed Report (Defendant's Exhibit No. 61) and by measuring on the ground the distance so scaled, westward from Monument No. 4, the Commission actually mistook Clark's Monument No. 3, as being his Monument No. 4. This error, the plaintiff claimed, gave the Commission a starting point for its scale measurement, 3,000 feet too far to the west—with the result of pushing its relocation of the Monument No. 1, and of the river bank westward by a similar 3,000 feet.

The plaintiff's second contention (which I shall consider first) is based on its interpretation of the statement which Clark made in his field notes, referring to his Station No. 1 on the parallel (that Station being the point where he began his survey). The statement reads as follows:(2)

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(1) See photographic reproduction of page 5 of Clark's printed field notes in Defendant's Exhibit No. 85 (Record 3067).

(2) See Plaintiff's Exhibits No. 20, 61, 79 (Record 3120, 3180, 3180); Defendant's Exhibits No. 61, 63, 84-95 (Record 3372, 3373, 3067); The Senate Document No. 70, 47th Cong., 1st Sess., is included, by stipulation, as part of the Record.

Survey on Parallel 32° 00′ 00″

January 26th. Angles Read from E. by S.

Station 1

	°	′	″
From mon. to st. 1 measured (2) 55 ch. 33 ft.; n. base line	00	00	00

The plaintiff construes this to mean that the monument there referred to is Clark's Monument No. 1, and that it was located *at* Station No. 1, the two being at the same spot. In support of this contention, plaintiff's engineer witness, Post, testified that he did not have his attention called to the Clark Report until after he had made his own survey and map of the Rio Grande of 1850; that he then proceeded to take the bearings on mountain peaks and other points stated in Clark's field notes, and that he identified Clark's Station No. 1 on the ground as lying 600 feet east from the location of the old river which had been previously pointed out to him by the Indian witnesses and by Van Patten, (or rather 843 feet east from the center of old river as so pointed out). Steen and Turley also so located Station No. 1. But since Clark, in his Report, described his Monument No. 1 as located at a distance of 600 feet east from the Rio Grande in 1859, it was necessary for the plaintiff, in order to find corroboration of the river as located by its Indian witnesses, to establish the fact that Clark's Monument No. 1 and his Station No. 1 *coincided in location.* To sustain such a contention, the engineers were forced to assume that the words "from Mon. to St. 1, measured (2) 55 ch. 33 ft.; n. baseline" meant "from Mon. *at* St. 1 measured (2) 55 ch. 33 ft. *to* north end of baseline." They contended that the measurement of 55 ch. 33 feet (i. e., 2,783 feet) was from a monument and station combined *to* the north end of the base line, and not *from* a monument *to* a station. In other words, they construed the word "to," as meaning "at." If, on the other hand, the words meant that Clark measured (2) (i. e. twice) a distance of 55 ch. 33 ft. (i. e., 2,783 feet) *from* his Monument No. 1 *to* Station No. 1, then the Monument No. 1 would be fixed at a point 2,783 feet west of Station No. 1; and the Rio Grande, as Clark found it

in 1859, would be fixed at a point 600 feet still farther west from Monument No. 1. If this latter meaning was correct, the relocation by Post of Clark's Station No. 1, would not corroborate the testimony of the Indian witnesses, as to the location of the river of 1850-1860.

I find, however, that it is not open to the plaintiff to make this contention, since I find, as a matter of law, that the boundary line between the State of New Mexico and the State of Texas on the thirty second parallel extends at least as far west as the westernmost point of the Clark line as reestablished by the Scott-Cockrell Commission; that this westernmost point is Monument No. 1, as relocated by that Commission, since Clark fixed his Monument No. 1, as "the initial point" of his survey; that under the provisions of the Joint Resolutions of Congress of February 16, and August 21, 1911, the State of New Mexico, upon its admission into the Union, accepted such lines as so reestablished and cannot now challenge the correctness of the acts of the Scott-Cockrell Commission; and that, in locating the boundary between the two States beginning at the thirty second parallel and exending south along the Rio Grande (as it flowed in 1850) to the International Boundary Line, this Court may not fix a starting point on the thirty-second parallel east of the westernmost point of the Clark line as reestablished by the Scott-Cockrell Commission.

If I am wrong upon this as a matter of law, I find, as a matter of fact, that the contention of the plaintiff is not correct as to the coincidence of the location of Clark's Station No. 1 and Monument No. 1. I find that Clark located, in 1859, his Monument No. 1 at a point 2,783 feet west of his Station No. 1; I find further that, as the Rio Grande at a point where it crossed the thirty second parallel, in 1859, was 600 feet west of Clark's Monument No. 1, it must have been at least 2,783 feet west of the river as located by the plaintiff's witnesses. It would unnecessarily expand this Report, if I should recite in detail the evidence on which I base this finding; but the following considerations may be especially noted. Clark states in his Report that, in surveying the parallel and marking it with monuments, he had "the boundary line constantly referred by triangulation to prominent physical objects which can be easily identified" (i. e., mountain peaks), and that he

intended to make his survey so complete that the line could be reestablished on the earth, even if all monuments were destroyed; for he stated in his Report:(1)

"The maps with the notebooks are the only real and lasting record of the boundary. The line runs through a country full of striking and prominent topographical features which can be easily identified; and being referred to in the notebooks and laid down on the maps in latitude and longitude, they can be taken as starting points from which, with bearings and distances, the boundary line may be found and retraced at most any place in any time without reference to the monuments at all."

And he explained the above as follows:

"What I endeavored to convey to you in my report bearing on the permanency of the monuments was that, even in the event of their destruction, the line could be re-established by a common surveyor without a repetition of the scientific and expensive operations employed in determining the parallels and meridians constituting the boundary."

From these statements, it is clear that a correct reproduction of his bearings, angles and distances should at any time relocate his line and the monuments thereon. Such a reproduction was attempted by the defendant's engineers, J. L. Campbell, and R. J. Owen. Clark's manner of procedure in 1859 was as follows. From January 9 to 17, he was occupied in laying out and measuring his baseline, on the accuracy of the measured length of which all his triangulation depended. It was "carefully and repeatedly measured," Clark stated. This baseline 4,750 feet long, extending northerly and southerly, he located about 2,537 feet south of the 32d parallel, and its location has been identified and agreed upon (within a difference of 4 or 5 feet) by engineers for both parties in this case. (2) From January 7 to 18, 1859, Clark was also occupied in locating an astronomical observatory and ascertaining

(1) See pages 305, 306 of Senate Document No. 70.

(2) The northern end of the baseline is located east of the present Santa Fe Railroad track. It is agreed by the engineers for both parties that, such being its location, its northern end lay practically on the bank or in the bed of the old river as pointed out by the Indian witnesses, and that the whole baseline was near to that bed, I am unable to believe that Clark ever laid out his baseline in such close relation to the Rio Grande as it flowed in 1859 (Record 2519).

its latitude. This he did by taking observations with a zenith telescope on 38 pairs of stars; and a tabulation of the results fixed the latitude of his observatory as being 31°, 59′, 48.23″,(1) These observations were made, as stated by him, to determine the latitude of "A 1st Initial Point (Rio Grande) 32d Parallel." The observatory being found to be on the parallel of 31°, 59′, 48.23 north latitude, it was 11.8 seconds south of the 32d parallel; 11.8 seconds, reduced to feet, is 1,192.53 feet (reckoning one second at 101.07 feet); and it would seem to me that by measuring 1,192.53 due north from his observatory, Clark must have reached the Initial Point of his survey on the 32d parallel.(2) This being done, a surveying party was sent, on January 19, 1859, south to Frontera, that being a fixed and well known astronomical point; and from there by triangulation and traverse a meridian was run north so as to connect up the astronomical work at the 32d parallel with the longitude as established from Frontera. Then, as Clark reported, "the initial point being established and marked by a stone monument bearing the necessary inscriptions, I commenced January 26th the survey of the parallel or boundary line proper." The first work on this survey appears in the entry quoted (supra); and it was followed by the taking of angles from Station No. 1.

Engineers for both parties in this case have agreed upon a reproduction of Clark's triangulation of his Frontera meridian, and upon the location on the ground of the meridian stations from which Clark laid his angles, and upon the location of his meridian and the point of its intersection with the 32d parallel. These engineers have also agreed as to the present location on the ground of Clark's stations No. 1, 2, 3, and 4 on the 32d parallel (though they do not agree as to the location of his monuments). Station No. 1, they locate now as about 50 feet east of the Santa Fe railroad track in Anthony.

I find that the defendant's engineers, by reproducing Clark's triangulation on the meridian and at the parallel,

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(1) See pages 144-151 of Senate Document No. 70.

(2) It is to be noted that Clark marked on his maps his observations at which he made his astronomical observations for latitude, by printing the word "observatory" and by placing a black dot; and on Map No. 1, this word and dot appears south of the point marked by him as "Initial Point." In the same manner, he marked on Map No. 2, his second observatory at the 32d parallel at Crow Spring (at the east end of his map).

have established the location of Clark's observatory as at a point 2,783 feet west of Clark's Station No. 1, and 1,209.3 feet south of the parallel. This location was fixed by them independently of any measurement of distance, by reproduction of at least four of Clark's angles involving known stations or mountain peaks.(1) The observatory as so located is practically coincident with Clark's observatory, as described by him in his Determination of Latitude and as shown by him on his map as lying due south of his Initial Point (i. e., of his Monument No. 1). It is certain that Clark's observatory in 1859 was east of the river; but the observatory, as located above, would be west of the river if the plaintiff's theory is correct that Monument No. 1 was located at Station No. 1. Reproduction by the defendant's engineers of angles taken by Clark at Station No. 1 further confirms the fact that his Monument No. 1 was *not* located at his Station No. 1, but was west of that Station.

I consider that the plaintiff's theory as to the coincidence of the location of Monument No. 1, with Station No. 1, is without basis. I consider further that the plaintiff's theory that the Scott-Cockrell Commission measured by mistake west from Clark's Monument No. 3, instead of from Clark's Monument No. 4 is also without basis.

I find, therefore, that as both parties are agreed upon the location of Clark's Station No. 1 (viz, as being 50 feet east from where the Santa Fe Railroad crosses the 32d parallel), his Monument No. 1 was 2783 feet west therefrom. This finding (which corresponds to the survey made by the defendant's engineers) locates Clark's Monument No. 1 as 216.5 feet east of where the Scott-Cockrell Commission relocated it (the Scott-Cockrell Monument being almost exactly 3,000 feet west of Station No. 1). This slight discrepancy is undoubtedly due to the fact that the Commission fixed the location by scaling the distances on Clark's map; and as that map was reproduced in the Senate Document on a very small scale, there was a chance of error in measurement. The location of Monument No. 1, either as so found by me or as fixed by the Scott-Cockrell

(1) See also sketches on pages 124 and 128, of Defendant's Brief, Vol. II; see also reproduction of Clark's triangulation, used in cross examination of Steen, inserted in Record between pages 2076 and 2077; see also Exhibit 20 (Record 3120).

Commission, is utterly inconsistent with the location of the river at the 32d parallel as pointed out to Post and to the other engineers for the plaintiff by the plaintiff's witnesses.

IV

The Defendant's Evidence

The evidence introduced by the defendant tended to prove that, from 1852 to 1860, the Rio Grande flowed in the following course. Beginning at the 32d parallel, at a point about 2,800 feet west of where the plaintiff's evidence showed the river as running, thence westerly, southerly, and easterly, in a large bend to a point west of the spot termed by the plaintiff's witnesses Tres Alamos, and between one half and three quarters of a mile west thereof; thence south to a point slightly north of New Canutillo, the course being very crooked, and in general less than a mile west of the course to which the plaintiff's witnesses had testified; thence in a southwesterly direction, across the valley to its western margin; thence southeasterly along the western margin of the valley, in a very crooked course, to a point called Piedras Paradas; thence almost easterly across the valley nearly to its eastern margin and to White's old ranch and Frontera; thence southeasterly to the International Boundary Line. The defendant's evidence tended to prove that from the point north of New Canutillo to the Piedras Paradas, the course of the river was west of the location of the river as testified to by the plaintiff's witnesses, by distances varying from one mile to nearly three miles.

In proof of the above, the defendant relied largely on a survey of the Rio Grande alleged by it to have been made, in 1852, by engineers named Diaz, under the direction of the Mexican Commissioner Salazar (to which I refer in this Report as the Salazar-Diaz Survey), and upon United States maps and other documentary evidence more or less contemporary with that survey. It also introduced in evidence numerous old Texas Surveys and patents. It introduced no testimony of witnesses other than civil engineers.

(1) The Texas Land Surveys and Patents

Before dealing with the Salazar-Diaz Survey, the Court may find it convenient to consider the situation as to the Texas Surveys and patents. I find that, for many years prior to the admission of New Mexico as a State in 1912, surveys by Texas surveyors were made and patents were issued by the State of Texas on substantially all the land located in the disputed region lying between the location of the river to the west as claimed by the State of Texas and the location of the river to the east as claimed by the State of New Mexico.(1) This fact appears to have been admitted by Charles L. Post, engineer witness for the State of New Mexico, on cross examination (Record 1848-1849):

"Q. Do the Texas patents go to the dotted line on this Map? (i. e. Exhibit C attached to the plaintiff's bill of complaint).

A. The line there, as indicated, is platted from the notes of the various Texas surveys to which I have made connection. I cannot say that they are all patented. * * *

Q. Where did you get that information, Mr. Post?

A. From the county surveyor's office. * * *

Q. Then you convinced yourself that this line was approximately the west line of the claims, according to the Texas titles?

A. That is where their claim extended, according to their field notes."

And later on cross-examination, Mr. Post testified (Record 2884-2885):

"Q. Mr. Post, do you find from the field notes and the patents of the Texas surveys, all of the territory east of

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(1) The location of these patented lands may be conveniently seen on Defendant's Exhibit No. 65, Record 3373. A convenient tabular representation of the dates of the original Texas field notes, surveys, and patents, together with references to the Record and the number of each exhibit so referred to, will be found in Defendant's Brief, Part I, inserted opposite page 260.

In the Record, opposite printed page 3222, is Defendant's Exhibit No. 15, consisting of 39 pages numbered in red ink containing photographic reproductions of surveys taken from the records of the County Surveyor of El Paso County, Texas. In the Record, pages 3223 to 3372, are copies of the Texas surveys and patents taken from the records of the General Land Office of the State of Texas.

where the river ran in 1850, presuming it ran in the valley, was occupied by those Texas surveys?

A. Do I understand that to cover every portion of the valley?

Q. Substantially.

A. I can answer that by saying, according to the map, plaintiff's exhibit 70.

Q. That the surveys did cover all the land?

A. Well, that the surveys did cover the land as shown on plaintiff's exhibit No. 70, platting from the various connections shown according to plaintiff's exhibit No. 65.

Q. Leaving out any particular exhibit, is it not true that the territory in dispute, and in the valley, and as substantially claimed by Texas, was covered by its locations under its patent and field notes?

A. Well, that is a fact, with the explanation that those locations assumed the position as indicated upon the different exhibits. Some locations assumed, and took in, in particular places, a portion of the valley; others took in more of the valley.

Q. The latter refers to higher land on the west side?

A. Yes, sir.

Q. The river always ran in the valley, did it not?

A. It is to be presumed so."

It is to be noted, furthermore, that the State of New Mexico, on its Pleading Map attached to its original bill of complaint has apparently admitted that the Texas surveys and patents covered all the land in the valley, at least as far west as the Salazar-Diaz survey of 1852; for on such Map there will be found marked a broken line, entitled "West Line of Surveys made by and under direction of the County Surveyors of El Paso County, Texas." As to this line, Mr. Post testified that "the line, there, as indicated, is platted from the notes of the various Texas surveys to which I have made connection;" that he had descriptions of the different surveys made by El Paso County surveyors which he had made from work previously; that he went upon the ground and ran the lines as delineated for the Texas surveys from the 32d parallel to the south end of the valley; and that "from the description as obtained in the field notes of the different claims," he convinced himself that that line "is where their claim extended, according to their field

notes" (Record 1848-1849). Eugene Van Patten, also a witness for New Mexico, testified that he was register of the United States Land Office in the years 1906-1909, and that while in office he never had an application that interfered with a Texas patent, that he knows of (Record 696, 698, 699); that so far as he remembers, he never had offered him a location covering any land claimed by the State of Texas, or by any person under a patent from the State of Texas. It is stated in the Defendant's Brief, Part Two, p. 262, that "the occupancy and physical possession by Texas patentees and persons holding under them, of the land in question, its use, cultivation and enjoyment is unquestioned." This, I understand, was admitted by counsel at the hearing before me as Master.

The patents issued by Texas may be divided roughly into three groups.

(1) The patents for lands lying between the 32d parallel and the north line of the Canutillo Grant, and extending south from that parallel a little over six miles. Most of these patents were issued between 1860 and 1873, and were based on Surveys made in the years from 1849 to 1873 (with the exception of the Marsh Survey made in 1881, and the Groesbeck survey)—the Surveys being numbered 161, 162, 54, 281, 35, 34, 163 to 172 inclusive. The Maverick Surveys 161 and 162 (made by Anson Mills) were immediately south of the 32d parallel and were bounded on the west by the Rio Grande as it flowed in 1860. South of these were Surveys 35 and 34, with their western boundary on the Rio Grande as it flowed in 1849. South of Surveys 35 and 34, there were the Maverick Surveys 163, 164, 165, 166, 167, 168, 169, 170, 171, 172 (made by Anson Mills), extending southerly in the order named (except 172, which was to the west of the others and bordering on the Rio Grande as it flowed in 1860). I find that within this latter group of Maverick Surveys, in 1858, their owner intended to include all the vacant land between Survey 34 and the Canutillo Grant, and to have a "frontage on the Rio Grande."(1) I find that the locations of Surveys 165 to 172 inclusive can be now fixed, since in the resurvey of the Canutillo Grant

(1) See Defendant's Exhibit No. 15, Record 3222 red numbered pages 5496 and 5501.

by John P. Randolph, in 1886, the original southwest corner of Survey 171 was found and identified and its distance measured east to the railroad track. Consequently, I find that all of said Surveys were in the river valley and west of the railroad. On the plaintiff's contention as to location of the river and of Clark's Monument No. 1, it would appear that a large part of all of the above Surveys would be located in the sandhills above the river valley.

(2) The patent for the Canutillo Grant. This was a patent for land extending in a north and south direction between four and five miles, its northern boundary extending over one third across the valley to the west (about a mile and a half) and with its southern boundary extending over two miles, practically the whole width of the valley. This land was a Mexican grant made in 1823; it was surveyed by Anson Mills in 1860, being Survey No. 173.(1) It was resurveyed by John P. Randolph and a patent was issued by the State of Texas, in 1886. The boundaries (except possibly the river boundary) contained in this patent can be substantially identified on the ground. It is certain that by far the greater part of the land patented was, in fact, located west of the location of the river claimed by New Mexico. Much evidence was introduced by the plaintiff to sustain its contention that the Surveys, both by Mills and by Randolph, were incorrect and not in accord with the boundaries set forth in the original Mexican grant. I find this evidence to be irrelevant, inasmuch as the Surveys, whether they were or were not incorrect, did, in fact, lay claim to land in the valley bounded on the west by the Rio Grande as shown on the maps made by Mills and Randolph introduced in evidence by the plaintiff. It is possible that these Surveys laid claim not only to all the land east of the river as contended for by the State of Texas but also to

(1) The Randolph surveys are shown on Defendant's Exhibit No. 15, Record 3222, red numbered pages 5505, 5506; Defendant's Exhibit No. 32, Record 3277; Plaintiff's Exhibit No. 67, Record 3151, see also affidavit of Anson Mills, August 27, 1886; Defendant's Exhibit No. 83, Record 3389; Defendant's Exhibit No. 62, Record 3373. The Mills Surveys are shown on Plaintiff's Exhibit No. 71, Record 2868, 3151 (numbered 5321 and 5322); Plaintiff's Exhibit No. 65, Record 3149; Defendant's Exhibit No. 15, Record 3222, red numbered pages 5503-5504; Plaintiff's Exhibit No. 70, 73, 74, 75, 76, Record 3151, 3153.

For a clarifying description of these Exhibits see Defendant's Brief, Part I, pp. 299-312.

land lying west of the Rio Grande; and the plaintiff has introduced evidence to that effect.(1) But even if this were true, it would not alter the fact that the Surveys did lay claim to the land as far west as the Rio Grande as it ran at the dates of the Surveys. The question whether the Surveys and the patent conformed to the original grant is only matter of controversy between the State of Texas and its patentee or other private claimants, and has no bearing upon the issue as to whether, in fact, the patent was issued for the land described and acted upon by the patentee accordingly.

(3) The patents for the lands lying between the south line of the Canutillo Grant and extending south to the end of the valley.

These patents were issued between 1863 and 1874 (with the exception of that to Max Miller, Survey No. 260, which was issued in 1908). They were based on Surveys, made from 1859 to 1873, numbered 3, 174, 154, 155, 158, 156, 157, 259, 260, 261, 263, 264, 265, 267. (Survey No. 262 was unpatented.) The lands so surveyed and patented are shown in their approximate location, as surveyed, on plats introduced by the State of Texas, and prepared by its engineer witness (Defendant's Exhibits, No. 62, 65 and 67). I do not find that the location of each Survey on said Exhibits is wholly accurate; for, owing to changes in the course of the river, the descriptions in the field notes of certain Surveys (such as Surveys 259, 260, 261, 34, 163) cannot now be strictly followed. There is much overlapping; and it is apparent that according to the field notes of some of the Surveys, such Surveys would extend across the river and up on the high banks west thereof. I find, however, that, whatever may be the exact location of those Surveys today, the intentions of the surveyor and of the applicant for land and of the patentee in seeking patent were to claim lying (at least in part) west of the location of the river for which New Mexico now contends, and to claim (so far as the Surveys and patents set up a boundary on the Rio Grande River) land lying at least as far west as that river then flowed.

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(1) Plaintiff's Exhibits No. 65, 67, Record 3149, 3151; Plaintiff's Exhibits No. 70, 73, 74, 75, 76, Record 2880-2883, 3151, 3153.

The plaintiff has introduced much evidence tending to prove that the locations of Surveys 154, 155, 158, 156, 157, 259, 260, 261, 262, as located on Defendant's Exhibits No. 62, 65, and 67, are incorrect and has introduced several maps so constructed as to show that these Surveys may (from descriptions in the field notes) be located so as to throw several of them up on the hills to the east, and entirely away from the river bank.(1) I regard this evidence as of little value; since the Surveys themselves claimed the river bank for their boundary.

I find that the western line of the lands claimed in the above Texas Surveys and patents fairly corresponds with a Survey of the river made in 1852 under the direction of the Mexican Commissioner Salazar (see infra). There are, however, many minor variations in the line of the river as shown on these Surveys from that shown by the Salazar-Diaz Survey, which may be due to the fact that the Texas Surveys were made at various dates (most of them being made in 1849, 1860 or 1873).

I find further that no evidence has been introduced that, from 1850 to 1911, the United States of America issued any patents specifically covering lands east of the Rio Grande as located by the Salazar-Diaz Survey of 1852, or conflicting with any of the patents above referred to issued by the State of Texas. On Defendant's Exhibit No. 68 (Record 3373), which is a copy of a map from the United States General Land Office, made in 1903, showing portions of fractional townships in the then Territory of New Mexico, bounded on the south by the International Boundary between the United States and Mexico and on the northeast by the Rio Grande River as surveyed by the United States in 1905, there are shown the Surveys and patents issued by Spain, Mexico and the United States on the New Mexico side of the Rio Grande along the southern portion of the area in dispute in this case; and on Defendant's Exhibits 65 and 67, Owen an engineer witness for Texas has platted a reproduction of this Land Office Map, in connection with the location of the Rio Grande River as it flowed both in 1905 and in 1914. No portion of the land, as so surveyed in New Mexico in 1905, appears to extend to the east of the line of the river claimed by Texas,

(1) Plaintiff's Exhibits No. 69, 69a, 69b, 72, Record 3151, 3153.

with a possible exception of a small tract near the Courchesne Bridge.

With reference to a tract of land at the southern end of the valley, there was introduced in evidence a decree of the United States Court of Private Land Claims made in August, 1900, which recited that a grant had been made by the King of Spain, in 1790, to Francisco Garcia of a parcel of land "situate in the county of Dona Ana in the Territory of New Mexico as at present constituted," bounded and located as follows: "The tract of land known as the Santa Teresa, bounded on the north by that bend known as the 'Cobrena;' and on the south by the bend of the Piedras Paradas, the same being somewhat to the north of the present location of the Southern Pacific Railroad bridge where the same crosses the Rio de Norte; on the east, the old bed of the said Rio Grande del Norte, as the same ran and existed in the year 1853, and on the west the brow of the ridge running parallel with river." The Court in its decree confirmed this grant to the heirs, representatives and assigns of the original grantee (the assigns later being the Santa Teresa Company) as a valid claim against the United States—"for the land included within the natural boundaries above set forth."(1) This decree was based on a resurvey and relocation of the boundaries of the grant as made in 1853. A patent was subsequently issued by the United States, but it was not introduced in evidence by either party. The Santa Teresa Company claims land east of the lines set forth in the patent, on the ground that "the patent lines of the east boundary of the grant did not go far enough to the east to cover all the lands that were embraced in the grant as it was originally given in possession in 1852 by the Mexican authorities." It appears that if the eastern boundary of the Santa Teresa Grant is the old bed of the Rio Grande "as the same ran and existed in the year 1853," then if the claim of New Mexico shall be sustained and the old 1853 bed be established as on the eastern side of the valley instead of on the western, the Santa Teresa Grant may be, to that extent, expanded and extended eastward.

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(1) Plaintiff's Exhibit No. 93, Record 3181-3185, 3059, 3064-3065, 3186-3187; Record 3079; Defendant's Exhibits Nos. 13, 13a, 13b, 14, Record 2393-2419, 3196-3222. The plaintiff's engineer witness, Steen, testified that the north line of the Santa Teresa Grant must be in the neighborhood of half a mile south of New Canutillo (Record 2021).

With reference to a tract of land at the northern end of the valley, evidence was introduced of a decree of the United States Court of Private Land Claims, in 1901, in the case of the Corporation of the Colony of Refugio, confirming a Mexican grant made prior to 1853 and affecting lands located on the west bank of the Rio Grande, south of the 32d parallel. A final decree, March 14, 1903, confirmed title as against the United States to land "on the west bank of the Rio Grande del Norte as the same was situated in the year 1852."(1) A patent was subsequently issued by the United States, but it was not introduced in evidence by either party. There is no evidence, however, that this Refugio Colony Grant would extend east of the river line claimed by Texas, or east of the river as it crossed the 32d Parallel west of the Clark Monument No. 1, as located in 1859.

I call the attention of the Court to the fact, in case it shall desire to take judicial notice, that in the records of the General Land Office in the Department of the Interior in Washington, there are official United States Surveys of both the Santa Teresa Grant and the Refugio Colony Grant, made pursuant to the decrees of the Court of Private Claims, said Maps being marked respectively as follows: "Santa Teresa Grant surveyed by Wendell V. Hall, December, 1903, under Contract 362 dated November 5, 1902, approved by the Surveyor General, June 16, 1904" and "Plat showing the Refugio Colony Grant Tract No. 1 and 2, surveyed by Wendell V. Hall, United States Deputy Surveyor, December 23, 30, 1903, under his contract No. 362, dated November 5, 1902." On the first of these there is laid out the Rio Grande as it ran in 1853;" on the second "Old River as it ran in 1852." These United States Surveys and Maps have not been introduced in evidence by either party. They would appear to be relevant; for, although, so far as they show the course of the river in 1852 or 1853, they would not be binding upon the State of Texas, yet, being made by the United States Government in the year 1903 (nine years before the admission of New Mexico as a State), they might be binding upon the State of New Mexico to the extent that they sustain the contentions of Texas, as a recognition of the claims of

(1) Plaintiff's Exhibit No. 93, Record 3181-3185, 3059-3064.

Texas by the United States while New Mexico was a Territory.

On the above evidence (but without consideration of the Maps last above referred to), I find that, for at least thirty years while New Mexico was a Territory and prior to its admission as a State, the United States made no challenge of the claims to lands asserted by the State of Texas and by its citizens through surveys, patents, and locations, and that it, impliedly, at least, recognized the practical line that had been established as the boundary between the Territory and the State, so far as this line lay in the Rio Grande.

(2) Proof of the Salazar-Diaz Survey

As proof of the location of the river in 1852, the State of Texas, on November 26, 1914, offered in evidence a document, in Spanish, accompanied by a map or plat, (together with an English translation testified to as correct by a competent witness), entitled:

"Data relative to the survey of the Rio Bravo, Between Paso del Norte and Los Amoles, made in the year 1852 by the Engineer Don Augustin Diaz, by order of the Commissioner Don Jose Salazar Llarregui, taken from the memoir written by the first and accompanied by the calculations of courses and the coordinates corresponding to the triangulation between the same points, which calculations have been made by the Engineer Baltazar Fernandez Cué on September 30, 1911."

As objection was made to the admission of his document in evidence; as the document constituted a considerable portion of the defendant's case; and as the course of the hearings with reference to it presented highly unusual features, I feel obliged to make a detailed statement.(1) A certificate that the documents "contain a true copy of the field notes which exists in the archives of this Commission, on the pages of the collection of papers to which belong the said memoir" was made October 2, 1911, by F. P. Puga as "the Mexican Commissioner on the International Boundary Commission between Mexico and the United States,"

(1) Defendant's Exhibits No. 12, 12a, Record 3192, 3194, 2363-2392.

and under his official seal.(1) Puga, as Commissioner of the International Boundary Commission, derived his authority from the Boundary Convention and Treaty between the United States and Mexico of March 1, 1889, proclaimed December 26, 1890 (26 Stat. 1512), and under the Convention for the arbitration of the Chamizal Case of June 24, 1910, proclaimed January 24, 1911. Under the Treaty, the Commissioners had exclusive jurisdiction in determining differences arising between the nations out of alteration and changes in the bed of the Rio Grande; and Article 7 provided that the Commission "shall have the power to call for papers and information and it shall be the duty of the authorities of each of the two countries to send it any papers that it may call for relating to any boundary question in which it may have jurisdiction in pursuance of this convention;" and the Commission might take and hear evidence and compel attendance of witnesses in conformity with the laws of both nations.

To the introduction of this evidence, counsel for New Mexico objected on November 26, 1914, on the ground that Mr. Puga had no authority to certify, and that his certificate was defective, and on other grounds. Thereafter, on November 28, 1914, counsel for New Mexico stated at a hearing (Record 2458):

"And I can say that before we get through, we will offer in evidence a properly certified copy of the record of memoranda and field notes of Agustin Diaz or so much thereof as covers this part of the river, from below El Paso and up the river from El Paso to Amoles. And it will be found upon inspection, as I am informed, that that certified copy and the copy in the printed book vary so slightly one from the other that the difference may be attributed to topographical errors of no importance. We have that certified copy

(1) See Record 2391, 3195. To this certificate was attached a certificate dated October 3, 1911, as follows: "The undersigned Subsecretary of Foreign Relations, certifies: that Senor F. Beltran y Puga is Chief of the Mexican Boundary Commission with the United States of America and that the above signature is his." (Signed) "by order of the Subsecretary the chief clerk, Agustin Ansorena, under seal. To these certificates there was attached a certificate under the seal of the consulate, dated October 4, 1911, and signed by Arnold Shanklin, Consul General of the United States of America, at Mexico, Mexico, to the fact that the signature of Agustin Ansorena "is his true and genuine signature" and that said Agustin Ansorena "is personally known to me to be the Chief Clerk of the Department of Foreign Affairs at Mexico."

from one of the departments of the Mexican government. With this statement I do not think it will be necessary to put that in at this time. It is a very large and cumbersome thing."

A month later, in December, 1914, counsel for New Mexico furnished to counsel for Texas, the copy of the Diaz notes above referred to, stating to J. L. Campbell, a civil engineer, witness for Texas, that the document produced "was a copy certified by one of the government officers in the city of Mexico and that I was informed that a comparison of it with what appeared in the printed Chamizal book showed no difference of any importance, as I have been told by the person who made the comparison" (Record 2582). This document contained all the field notes and other matter included in the document offered by Texas as Exhibit 12 (with the exception of the calculation of courses made by Engineer Baltazar Cué in 1911.); and it also included further data (including the diary of Diaz). Campbell, the engineer, testified that the record of the Survey in the two documents agreed and was evidently copied from the same original record; and he further testified (for several days) as to his calculations and maps made from his use of the Diaz notes supplied by New Mexico, and was cross-examined on the same. Another Texas engineer witness, R. J. Owen, was similarly examined and cross-examined, in December, 1914.

Over a year later, February 21, 1916, the State of Texas offered in evidence, as Defendant's Exhibit No. 71, this document supplied to it by the counsel for New Mexico; it also offered in evidence a plat (Defendant's Exhibit 70), showing the Diaz Survey as verified on the ground by its engineer witnesses.(1) No objection was then offered by counsel for New Mexico to admission of the Exhibit No. 71, in evidence. Thereafter from February 21 to 24, 1916, the Texas engineers were examined and cross-examined regarding their work and calculations based on this Exhibit and concerning the reproduction of the Survey on the earth's surface made by them; and civil engineers (Post and Steen) were put upon the stand by New Mexico, November 22, 1916, and were examined and cross-examined as

(1) See Record 2781-2793, 3373, 3374.

to their work and calculations based on this Exhibit.(1) The hearings were then adjourned to November 25, 1918. On this date, the counsel for New Mexico for the first time made objection to the admission of Defendant's Exhibit 71; and he moved to strike it out from the record, "for the reason that the same is not so authenticated as to be admissible in evidence, and the alleged record of the Survey discredits itself upon its face as appears by the testimony taken, and that the same is not competent, relevant or material to the issues in this case." He further stated that when he gave the translation of Exhibit 71 to counsel for Texas, he believed that the original copy had been properly authenticated, but that he did not now think that it was.

He also produced the copy of the Diaz notes in Spanish, translation of which constitutes Exhibit 71. He also renewed his objection to the admissibility of Defendant's Exhibit No. 12, on the ground that it was improperly authenticated.

In support of his motion to exclude, counsel for New Mexico introduced as a witness Thomas B. Catron of Santa Fe, New Mexico, who testified that in March, April or May of 1918 (two years after the introduction of Exhibit 71, without objection) he went to Mexico City, at the request of counsel for New Mexico, having with him the copy of the Diaz notes in Spanish (translation of which was Exhibit 71) which had been handed to him by counsel for New Mexico; that the Department of Fomento (Interior) informed him that there was no original of such a document on its files, and that, if there had been one, it had been taken away by Villa when he occupied the city and took away the index of all the documents; that the Department offered to allow him to employ at his own expense three men to examine the archives, but that he declined to do so; that a subordinate of the Minister of Fomento informed him that there was no such document in the files (the Minister's files being distinct however from the archives); that the Assistant Chief of the Department of Foreign Relations informed him that no survey was on file in that Department in connection with the treaty of Guadelupe Hidalgo,

(1) On March 23, 1916, New Mexico offered Plaintiff's Exhibit No. 68 in evidence (Record 2850), which exhibit was based, in part, upon information contained in Defendant's Exhibit No. 71.

and not even any surveys of the Rio Grande from its mouth up to 31 degrees 47 minutes (although such surveys had been in fact actually made and approved by the Commissioners both of the United States and of Mexico); that he inquired of Mr. Puga, who had then ceased to be Boundary Commissioner, and obtained no information; that he himself is an interested party, being a stockholder in the Santa Teresa Company which claims to own some of the land involved in this case; that the document which he took with him to Mexico was certified to as follows: (translates) "is a copy of which I certify to January 22, 1914. Romulo Escobar"(1), attached to which certificate is a certificate from the Consul General of the United States in Mexico that the signature of Romulo Escobar is genuine, and that he was personally known to him to be Sub-Secretary of the Department of Fomento of Mexico; that he (Catron) was told that Escobar was the officer in charge of the archives in the Federal Building in Mexico City in 1914; but that in 1918, he was no longer in charge and was out of the city; that the official document in the form of a book issued by Mexico containing the evidence in the Chamizal Arbitration Case contains portions of Exhibit 71 but nothing relating to the Diaz Survey north of 31 degrees 47 minutes.

On the conclusion of Catron's testimony, the case was closed by counsel for both sides, November 26, 1918.

On this state of facts, I find as a matter of law, (so far as I have any authority to make such finding) that Defendant's Exhibit No. 71 was admissible in evidence. It is true that the certificate is somewhat incomplete and informal; but even if this Exhibit was not technically admissible, I am of opinion that under the decisions of United States v. Wiggins (1840) 14 Peters 334, 346, and United States v. Acosta (1843) 1 Howard 24, the objection to its admissibility, made by counsel for the plaintiff, came too late. (2) The document in question had been in his possession since at least December, 1914(3); he could have ascertained

(1) "Es copia que certifico, Mexico, Enero 22 de 1914, Romulo Escobar." Record 3088; Plaintiff's Brief, Part Two, pp. 65-66.

(2) See also Benson v. United States (1892), 146 U. S. 325, 332.

(3) The engineer, Post, witness for the plaintiff, testified that, in 1913, he discovered the Diaz notes as set forth in the Chamizal Case (Record 2904) and that he first saw a certified copy of the Diaz Survey from San Ignacio y Amoles (i. e., the work here involved) "gotten from Mexico City or elsewhere" at the time when he first testified, i. e., February 12, 1914 (Record 1758).

its authenticity or the existence or non-existence of any original; he himself offered it to the defendant's counsel in substitution for a similar document presented by the latter in evidence; he allowed defendant's counsel to introduce it in evidence in February, 1916, without objection; and he allowed both defendant's and plaintiff's witneses to make use of it in their surveys and calculations and to testify at length in regard to it and its contents, both on direct and cross-examination; he waited until the very close of the evidence before objecting to its admissibility and moving to strike it from the record. Under these circumstances, I find that the plaintiff has no right to object to its consideration by this Court.

Even if Defendant's Exhibit No. 71 was not admissible, however, I find that Defendant's Exhibit No. 12 (which contains most of the same data as Exhibit 71, including the Diaz field notes, but not including the Diaz diary) was admissible in evidence; and that it was duly authenticated by the Mexican official having proper custody of the original, as Boundary Commissioner, in accordance with the terms of the Treaty and of the Convention above referred to. So much of Exhibit 12, as includes the calculations made by the engineer Baltazar Cué in 1911, I find not to be admissible; but these calculations have played no part in evidence in the case, and the testimony of engineer witnesses both for the plaintiff and defendant has been based on independent work and calculations made by each engineer respectively.

(3) Authenticity and Accuracy of the Salazar-Diaz Survey

(a) *Authenticity*

The plaintiff questioned the authenticity of this Survey, and suggested that it was not made at the time that it purported to be made, but that it may have been manufactured in Mexico for some ulterior purpose. I find no evidence to sustain any doubts as to the authenticity; and since it was to the disadvantage of Mexico that the river should be located on the west rather than the east side of the valley, I can conceive no reason why a fictitious survey should have been constructed which would establish a

boundary contrary to the interests of Mexico. From internal evidence in the document itself, from the historical evidence in this case, and from the fact that the triangulation and traverse contained in the Survey have been reproduced on the ground by engineers in this case, I find that the Survey is authentic.

While I do not base my finding upon the fact, it appears that the authenticity of the document, of which the Salazar-Diaz Survey introduced in evidence in this case is a portion, has been conceded by the United States, prior to the admission of New Mexico as a State. There are on the files of the Department of State official documents (which were not introduced in evidence but of which I assume that the Court may take judicial notice) comprising correspondence between the Secretary of State and Brig. Gen. Anson Mills as American Commissioner on the International (Water) Boundary Commission regarding this Survey, and also the official minutes of a meeting of the Joint Commission held at El Paso. October 20, 1908, the latter reading as follows:

"The Joint Commission met at the office of the American Commissioner at 10 o'clock A. M.

"The American Commissioner stated that he had received instructions from his government to collate the original field notes of the Salazar survey, recently discovered in the Mexican archives, in order that they may be 'applied in any future case where the Commission is of the opinion that a more detailed and accurate map may be produced by resorting to these notes than by an enlargement of the official maps of the survey of 1853, made by Emory and Salazar on the very small scale of 1:60000'; that he was ready to proceed with the work and suggested that each of the Consulting Engineers be directed to prepare a map plotted from these original Salazar field notes and for this purpose requested that the American Consulting Engineer be furnished with said notes as soon as convenient in order that he may have same translated into English.

"The Mexican Commissioner replied that he had received similar instructions from his government and was prepared to proceed with the work, but suggested that only the field notes of the survey of the El Paso Valley be plotted at this time; that the field notes of the survey of other portions of the river could be plotted as necessity demanded and that

he would turn over the field notes of the survey of the El Paso Valley to the American Consulting Engineer as requested.

"Therefore it was agreed that each Commissioner would instruct the Consulting Engineer of his section to prepare a map on a scale of 1:5000 of the El Paso Valley plotted from the original Salazar field notes.

"The Commission then adjourned.

(Signed) Anson Mills, (Signed) Wilbur Keblinger,
(Signed) F. B. Puga, (Signed) César Canseco."

Moreover, in the Government document printed by the Department of State, entitled "Chamizal Arbitration—Argument of the United States of America before the International Boundary Commission, United States-Mexico, Hon. Eugene Lafleur presiding under the provisions of the Convention between the United States of America and the United States of Mexico concluded June 24, 1910 (Washington, Government Printing Office, 1911)" on page 56, the United States cites, as one of its authorities for its contention that "the river should serve as a continuing water boundary regardless of changes on its banks or in its course by accretion," the Survey of River 1852, Mexican Case Annex No. 3, p. 111. By reference to the printed "Brief presented by the Government of Mexico to the Agent of the Government of the United States of America in accordance with Article V of the Arbitration Convention in regard to the Chamizal Case, dated June the 24th, 1910 (1911)," it appears that the Annex No. 3, above referred to, was entitled "Technical Report of Engineer, D. Augustin Diaz." This "Technical Report" is the same document (with some minor variations of translation into English) as the Salazar-Diaz Survey introduced in evidence by the State of Texas, in the case at bar.

It is true that these citations by representatives of the United States were made with special reference to that portion of the Diaz "Technical Report and Survey" relating to the river at El Paso. But this the document contained the full survey of the river, from the initial point at the parallel of 32 degrees 22 minutes down to Frontera, and from Frontera to El Paso, and thence south; and there is nothing in the statements of the United States representa-

tives or in the circumstances surrounding the document to give a basis for any discrimination as to the superior authenticity of any one part of the document over any other part.

(*b*) *Accuracy*

As to the accuracy of the Salazar-Diaz Survey it may be noted, in the first place, that United States Commissioner, John H. Bartlett, in his Personal Narrative, stated that the engineers connected with the Mexican Commission (i. e., under the Treaty of Guadelupe Hidalgo) were "gentlemen of education and graduates of the Military School at Chapultepec (Record 2317). And Salazar, in the report of Conference with Emory of August 1, 1852, said that "he is sure that the surveys for the maps, which he had already submitted, have been done with all the scientific exactness possible" (Record 2246).

At the hearings in this case, the engineers for both defendant and plaintiff testified as to the technical details of the Salazar-Diaz Survey at great length (in over 200 pages of the printed record). Much of the earlier testimony became superfluous at later hearings; for between December 1, 1914 and November 22, 1916 (the dates respectively when the first and last testimony on the subject was given by J. L. Campbell, a civil engineer, witness for the defendant) actual surveys had been made on the ground, to reproduce the data given in the Salazar-Diaz Survey. The field notes of the latter contain a system of triangulation from El Paso to Frontera, and from Frontera to a point slightly north of Amoles and about one mile and a half south from the thirty second parallel; the field notes also contain a traverse, by courses and distances, purporting to have been made by Diaz along the west bank of the river, accompanied by remarks commenting on conditions at various points. For the triangulation, Diaz took known fixed points such as the Paso Observatory, Muleros Mountain, Frontera Observatory, prominent points on the western crest of the valley, and five points on the river bank, marked R IX, R X, R XI, R XII, R XIII, as the vertices of his triangles. For the traverse, Diaz established 50-60 numbered stations, with lettered signals, along the river bank.(1) The traverse

(1) See Record 2781-2793; testimony of Campbell, 3044-3045; testimony of Post, Record 2900-2910.

was hung upon the triangulation points on the river bank at five places, at about every three miles. As Campbell testified:

"It appears from the record left by Diaz that his triangulation from San Ignacio to Los Amoles was for the purpose of fixing with precision a sufficient number of points on the west bank of the Rio Grande, on which his traverse of the river bank could be hung, checked, verified, and, if necessary, corrected. Diaz speaks of the triangulation points on the river bank as being points for the rectification of the river survey. * * * It is * * * as I understand, agreed to by the experts for the plaintiff and the defendant, that such points on the bank of the river as represented by the Diaz survey were so fixed from Frontera to Los Amoles. And it is also agreed that Diaz did hang his traverse of the river bank on these precise triangulation points, making the latter points in the traverse."

And he testified further that the location of the traverse of the river bank "is exclusively fixed by the Diaz triangulation points of Frontera, R X, R XI, R XII, R XIII. There is nothing else that fixes the positions of that traverse" (Record 3050). If, therefore, the Diaz triangulation points can now be determined and verified by his angles taken from and to them, then his traverse can also be determined. I find that the defendant's engineer witnesses have reproduced the Salazar-Diaz triangulation on the ground; and that it is accurate; and that it can now be reproduced by any engineers whom the Court may appoint to survey the boundary. I call especial attention to the statement by the engineer, Campbell (Record 3049-3050):

"Fortunately, the Diaz triangulation is defined on the ground by natural or artificial objects made points in that survey and which objects still exist in the positions they occupied when Diaz made them points in his triangulation. These are the Paso church and the mountain peaks Muleros, E. G. and H., fully identified in the Diaz field notes and now discoverable on the ground and which have been discovered and completely identified in relative positions each to the other corresponding precisely with the record which Diaz left of them as triangulation points in his survey. Not only have these points, fixing by themselves the precise

positions of not less than nine lines of the Diaz triangulation, been fully identified by the record thereof which Diaz left, but they have been additionally verified each by approximately one dozen azimuths derived from other points in the Diaz triangulation, and by an independent triangulation checking their positions and lengths made by Owen and myself."

I find also that the Salazar-Diaz traverse has been meandered on the ground by course and distance by the defendant's engineers, and can be by other engineers; and that Defendant's Exhibit 70 entitled "Reproduction and Survey of the West Bank of the Rio Grande" is substantially correct(1); and that it represents substantially correctly the course of the river as surveyed by Salazar-Diaz in 1852, which can be seen more clearly on Defendant's Exhibits No. 65 and 67. There may be slight discrepancies in the checking of the traverse by the triangulation, at the points of the latter resting on the river; but these variations would affect the course of the river by only a few feet to the east or west.

There was considerable discussion in the testimony as to whether the defendant's engineers had used the correct magnetic variation in reproducing the traverse. I find that, whichever magnetic variation was used, the location of the river would not be substantially altered from that shown on the Defendant's Exhibits No. 65 and 67; and that the question of the proper magnetic variation can more properly be determined by the engineers, in carrying out any decree which shall be made by this Court for the fixing of the boundary.

There was also much discussion between the engineers as to the location of the point termed by Diaz as Frontera, and as to the proper variation in fixing that point. I find similarly that this is a question which need not be de-

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(1) See Record 3373; and testimony of Campbell, Record 2778-2807, William P. Steen, engineer witness for the plaintiff, testified that he found the reproduction of the triangulation by Campbell on the ground to be correct, and also that there was no question that Diaz's work was "splendidly done." (Record 2971, 3020.) Post, also engineer witness for the plaintiff, testified that, "I agree with the engineers for the State of Texas, so far as the location of the triangulation system is concerned. It is without question" (Record 2933); and see the Salazar-Diaz river as platted by Post, on Plaintiff's Exhibit No. 76, Record 3153; and testimony of Post as to it, Record 2900.

termined at this stage of the proceedings; for even if the plaintiff's engineers are correct in their contention, the resultant reproduction of either the triangulation or the traverse would not place the river anywhere near the location claimed for it by New Mexico.

(4) Corroboration of the Salazar-Diaz Survey by Contemporaneous Maps

(a) *The Emory Map No. 29*

In support of its contention that the Rio Grande flowed, in 1850, on the western side of the valley and not on the eastern side as claimed by the plaintiff, and in corroboration of the course of the river as shown by the Salazar-Diaz Survey, the defendant introduced several maps covering the area in dispute prepared by Major W. H. Emory, Lieu. N. Michler, Lieu. G. K. Warren, Lieu. John G. Parke, and Capt. John Pope, from 1853 to 1867.(1) Most of these maps are drawn on too small a scale (especially as reproduced in the Record) to be of assistance to the Court. Two of them, however, are entitled to considerable weight. As already stated (supra, p. 11) Major W. H. Emory, acting, until December, 1852, as United States Surveyor under the Treaty of Guadelupe Hidalgo, and, after January, 1854, as United States Commissioner under the Gadsden Treaty, prepared maps of the whole boundary between Mexico and the United States from the Pacific Ocean to the Rio Grande and down the Rio Grande to the Gulf of Mexico. These maps were agreed by Jose Salazar y Llarregui, the Mexican Commissioner, at a meeting of the Joint Commission appointed under the Gadsden Treaty, held on September 21, 1857; and similarly the Mexican maps were agreed to by Emory, and the two sets of maps were jointly signed and the respective sets deposited with the respective Governments.

One of these maps, No. 29 (Defendant's Exhibit No. 6) not only delineates the Rio Grade from its intersection with the parallel of 31 degrees 47 minutes, and southeast therefrom to a point below El Paso known as San Elceario;

(1) Defendant's Exhibits No. 1, 2, 3, 4, 5, 7, 8, 9, 10, 11; Record 3192, 2355-2363.

but it also contains a delineation of the river north from that parallel up to the parallel of 31 degrees 52 minutes and for a slight distance beyond; in other words, the Map substantially includes the river from the boundary up to the south line of the Canutillo Grant (referred to supra, p. 49). Delineation of the river north of the parallel of 31 degrees forty seven minutes, i. e. north of the boundary line, of course was not binding upon either the United States or Mexico, after the Gadsden Treaty; but I find that such delineation on this Map No. 29, has considerable evidential value in the case at bar, taken in connection with the following facts. Major Emory, in his official Report in 1856 (a report which includes a description both of his work under the Treaty of Guadelupe Hidalgo and under the Gadsden Treaty), after stating that the work of the Commission was shown on a series of fifty-four maps (of which No. 29 is one), wrote that "they are too voluminous to admit of publication, and it is believed all the information which they contain is condensed in the five maps which are published." Now, Defendant's Exhibit No. 2 consists of one of these five published maps, viz.: Index Map No. 3, condensed from the other detailed maps of which No. 29 was one. As to these maps, Emory, in his Report, makes the following very significant statement—that they show "the boundary line and *topography of the country contiguous, as far as information has been obtained from actual survey or reconnoissance*" (Italics mine); and he adds the further significant comment: "I have confined myself in all these maps, except the general map (i. e. a map based on a scale of 1 to 6,000,000 *to actual information—derived from instrumental survey* (italics mine) * * * I have considered that the time has come when hypothetical geography should cease, particularly when the graphic representation of a country is confided to the hands of officers of the United States Survey." This statement that the maps were prepared "from actual survey or reconnoissance" "actual information derived from instrumental survey", not only with respect to the boundary line under the Gadsden Treaty but also with respect to the "topography of the country contiguous," makes it extremely probable that the line of the river and the topography of the country north of the parallel of 31 degrees 47 minutes must have been delineated, on Map No. 29, from the Survey which had

been made of that portion of the river by Charles Radziminski in 1852, and to which I have referred in this Report (supra, p. —). This Survey of the Rio Grande, from the parallel of 32 degrees 22 minutes down to Frontera, was accepted by Emory and by United States Commissioner, John R. Bartlett, as the official United States Survey; and the latter stated in the preface to his Personal Narrati[illegible] published in 1854, that:

"the maps of the survey, as well as the astronomical, magnetic and meteorological observations with all that strictly appertains to the running and marking of the boundary line were, by the instructions of the Secretary of the Interior, placed in charge of the surveyor, Brevet Major W. H. Emory. * * * From the high character of that officer as an engineer, the public may expect, in proper season, a satisfactory account of his labors in those departments. Some time must elapse before the maps to illustrate the whole country from one ocean to the other can be completed."

As stated supra (p. 8), this Radziminski Survey was not introduced in evidence; and it cannot be found in the official Government files. I have no doubt, however, that it was used by Major Emory in the preparation of Map No. 29. Since this Map, as reproduced in the Record, has been reduced from its original scale of 1 to 60,000 (or approximately one inch to a mile) to 1 to 107,000, I have secured from the State Department an original copper plate engraving of the original Map No. 29, on the larger scale; and I have filed this with my Report (marked Master's Exhibit 1), for the inspection of the Court. This Map shows that the course of the river as delineated is entirely inconsistent with the Pleading Map attached to the plaintiff's bill of complaint and testified to by the plaintiff's witnesses; for it appears that the river north from Frontera is shown as flowing on the westerly side of the valley and at a considerable distance from the Fort Fillmore Road (whether that road ran up the valley or along the foothills to the east).

(b) *The Salazar Map No. 29*

There is evidence of equal importance on this point contained in another Map, which was not introduced in evidence in this case by either party, but which, being contained in a Government document, I call to the attention of the Court, in case it shall wish to take judicial notice thereof. I refer to the Mexican Map No. 29 (known as the Salazar Map), corresponding to Emory's United States Map No. 29. This Map is annexed to and made a part of a Government document printed by the Department of State (not introduced in evidence by either party), entitled "Chamizal Arbitration—The Case of the United States of America before the International Boundary Commission, United States-Mexico, Hon. Eugene Lafleur, presiding under the provisions of the Convention between the United States of America and the United States of Mexico, concluded June 24, 1910—with portfolio of Maps (Washington, Government Printing office, 1911)." The Map bears the engraved signatures of Emory and Salazar under the words "Examinado, comparado y convenido" and is entitled, "Linea Divisoria entre Mexico y Los Estados Unidos, representando el Punto Inicial conforme al Tratado de 30 de Diciembre de 1853. Mapa Levantado en 1852 segun los instrucciones del Aquimensor y Comisario interno Jose Salazar Llarregui. Triangulation y Topografia por los Tentes de Ings. Agustin Diaz y Luis Diaz. Los determinaciones astronomicas del Punto Inicial y Paso del Norte fueron hechas por Jose Salazar Llarregui y. el Ings. Francisco Jimenez, Escala a 1-60,000. Nota. Linea divisoria en el Rio Bravo del Norte."

This Salazar Map No. 29, was submitted by the United States as a part of its case under the Convention with Mexico of June 24, 1910, which provided (in Article V) that "on or before December 1, 1910, each Government shall present to the Agent of the other party two or more printed copies of its case, together with the documentary evidence upon which it relies." In the "Case of the United States" (submitted by William Cullen Dennis, Agent of the United States), it is stated (p. 7): "The case is accompanied by and explanatory of the documents and evidence upon which it relies to substantiate the conclusions reached." Among the documents so relied upon and accompanying the Case

in the attached portfolio of maps, is the Emory Map No. 29, and the corresponding Salazar Map No. 29) (above referred to).(1) And in the "Argument of the United States of America before the International Boundary Commission, United States-Mexico, Hon. Eugene Lafleur presiding (Washington 1911)" (p. 56), the United States cited as one of its authorities for its contention as to accretion, "Mexican sheets No. 29, U. S. Case, Map 7"; and again (p. 99) it referred to "Mexican Sheet No. 29, which was a plan made in 1852 of the Rio Grande by Engineer Jose Salazar". It stated that it

"differed from United States Sheet No. 29, which was made six months later (see U. S. Case Portfolio Maps 6 and 7) * * * The original United States Sheet No. 29, did not show the signatures of the Commissioners, and an entry thereon made at the time was as follows: 'This map has been compared with the corresponding map of the Mexican Commission, and is found to represent the true boundary. The two maps agree except in the bed of the river, which circumstances is the consequence of the two surveys being made at different periods, six months apart, during which the river changed its bed, as it is constantly doing, but always within narrow limits.'"

It thus appears that, prior to the admission of New Mexico as a State in 1912, the Government of the United States relied on the Salazar Map No. 29, in an International Boundary Arbitration Case.

It also appears from the Government document entitled "Chamizal Arbitration Appendix to the Case of the United States before the International Boundary Commission—United States-Mexico, etc. (Washington, Government Printing Office, 1911)," Vol. I, pp. 109-13, that when the Chamizal dispute (then known as Chamizal Case No. 4)

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(1) These two Maps are each reduced from the original scale on which they were drawn (viz. 1 to 60,000) to a scale of 1 to 102,000 and it is stated on the face of each Map that the "reproduction is verified by the Coast and Geodetic Survey, Jan. 1911."

As the reproduction of the Emory Map No. 29, contained in the present case of The State of New Mexico v. The State of Texas is reduced to a scale of 1 to 107,000 (as will appear by making measurements) it will be found more convenient to compare the Emory Map No. 29, with the Salazar Map No. 29, as the two appear, in the Chamizal Arbitration—Case of the United States, supra, since the two are found in the portfolio of maps therein drawn on the same scale.

was originally presented for decision to the International (Water) Boundary Commission in 1896, the Commissioner of the United States (Gen. Anson Mills) relied on a photographic copy of the Emory Map No. 29; but, according to the Joint Journal of the Commission of a meeting held December 11, 1895:

"it was discovered that this photographic copy of United States Sheet No. 29 presented little evidence of having been signed by either of the Commissioners Emory or Salazar, or if it had been signed the photograph gave some indication of erasure on the original, while all the other photographic copies of the preceding numbers have the signatures of the two Commissioners clearly, while the original of the Mexican Sheet No. 29 in the possession of the Mexican Commissioner showed plainly the signatures of the Joint Commissioners."

After correspondence between the State Department and the Commissioner of the United States, the United States adopted the Mexican Map No. 29, according to the following entry in the Joint Journal of the International Boundary Commission of the meeting of March 23, 1896 (see "Appendix to the Case of the United States," p. 112):

"The United States Commissioner then presented to the Joint Commission a communication from the Secretary of State dated February 27, 1896, instructing him to abandon the United States Sheet No. 29 of the Emory and Salazar Survey, objected to by the Mexican Commissioner in the Journal of December 11, 1895, and to rely wholly upon the Mexican copy of said map, sheet, No. 29, when duly presented and duly authenticated for the determination of all cases hereafter to arise in the locality covered by it."

The instructions to the United States Commissioner were contained in the following letter from Secretary of State Richard Olney (see "Appendix to the Case of the United States," p. 113):

"Even were it possible to establish fully the authenticity of the mutilated manuscript copy now in our possession or of the engraved fac-simile thereof, as a record of the true boundary under the treaty, the circumstance that it varies

materially as to an important part of the boundary line from the signed original which the Mexican Government is entitled to regard as the treaty record of that boundary, would still make it difficult and perhaps a matter of tedious negotiation and ultimate conventional agreement to determine which of the two discrepant charts is in fact the true boundary. As matters now stand, I am inclined to think that the claim of the title of the Mexican map to be regarded as authentic and paramount cannot be contested by any facts or evidence in the possession of this Government."

Thereafter, the Mexican Map No. 29, was used by the representatives of both the United States and Mexico. It appears also from a Government document printed by the Department of State (not introduced in evidence) entitled, "Proceedings of the International (Water) Boundary Commission, United States and Mexico. Treaties of 1884 and 1889. Equitable Distribution of the Waters of the Rio Grande. United States Section, Anson Mills, Brig. Gen. U. S. A., Retired, Commissioner, W. W. Follett, Consulting Engineer, W. W. Kiblinger, Secretary (Washington, Government Printing Office, 1903)," that the United States representatives on this Commission relied on this Salazar Map No. 29, as evidence not only in the Chamizal No. 4 Case, but also in Cattle Seizure Case No. IV, and in the El Paso Street Railways Case No. 13. (See the above document, pages 47, 48, 70, 100, 140, 173, of which I assume that the Court may take judicial notice.)

It will be noted from the Spanish inscription on this Map, that it was made in 1852 (i. e., under the Treaty of Guadelupe Hidalgo), and that the triangulation and topography were made by Augustin Diaz and Luis Diaz. Whatever appears on the Map, therefore, was clearly taken from the Salazar-Diaz Survey (supra, p. 60), and under these circumstances, though the Map itself was intended officially only to fix the boundary line under the Gadsden Treaty, the information which it contains as to the topography and as to the location of the Rio Grande north of the Gadsden Treaty boundary is undoubtedly of evidential value. Examination of the course of the Rio Grande from the parallel of 31 degrees 47 minutes north to the parallel of 31 degrees 52 minutes and beyond, as depicted on this Map, makes it evident that the river there shown is entirely inconsistent

with the course of the river as contended for by the plaintiff, and is substantially similar to the course depicted on the Emory Map No. 29. There are some variations in the course of the river as shown on the two Maps, probably due to the fact, as specifically noted on the Emory Map, that the two surveys were "made at different periods, six months apart during which the river changed its bed as it is constantly doing but always within narrow limits."

Measurement of the distance of the river from the Fort Fillmore Road at the parallel of 31 degrees 52 minutes, on the scale of the reproduced Salazar Map, viz., 1 to 102,000 shows it to be nearly two miles, whereas the plaintiff's Pleading Map and testimony would show the distance to be from one quarter to one half mile, at this point which is substantially at the south line of the Canutillo Grant. The distance of the river from the road above Frontera on the Salazar Map is nearly a mile, whereas, on the plaintiff's contention, it was only a few hundred feet.

I call to the Court's especial attention further the fact that this Salazar Map is one of the few maps which depicts the Amoles Road, i. e., the road which ran up the valley on the western side. This road is shown to follow closely the west bank of the river. If the river as claimed by the plaintiff was on the east side of the valley and if the Fort Fillmore Road as claimed by the plaintiff ran along the east bank of the river, then the two roads—the Amoles and the Fort Fillmore—would have been close together, separated only by the river itself; but on this Salazar Map it is apparent that the two roads are depicted as several miles apart.

(c) *The El Paso-Fort Yuma Wagon Road Map*

By Act of Congress of February 15, 1857, c. 50 (11 Stat. 162), the Department of the Interior was charged with the construction of wagon roads west from the Mississippi River—one being from El Paso on the Rio Grande to Fort Yuma at the mouth of the Gila. Construction of this road began at El Paso (Franklin), October 25, 1857, and ended August 1, 1858(1). This road passed up the valley of the

(1) See Report of the Secretary of the Interior of December 2, 1858, 35th Cong., 2d Sess., House Document No. 108.

Rio Grande to Fort Fillmore. The Map of this road was not introduced in evidence by either party; but it was officially published by the Department of the Interior, and I assume that the Court will take judicial notice. It is entitled "Department of the Interior—Pacific Wagon Roads Map No. 1 of the El Paso and Fort Yuma Wagon Road, J. B. Leach, Superintendent. Made under the directions of N. H. Hutton, Chief Engineer assisted by G. C. Wharton, Prin'l Asst. Engr., W. D. Cross and P. G. Hume, Assts. 1857-8, Scale 1-600,000." It contains a note as follows: "The topography is only represented in detail, when known from actual surveys or sketches made in the field. The portions in outline are taken from the maps of the Mexican Boundary Commission and of Lt. J. G. Parke, Top'l Eng'r. The Rio Grande, Colorado and a portion of the Gila Rivers are taken from the maps of the Mexican Boundary Commission."

This Map is on a very small scale (ten miles to an inch); but it shows the course of the Rio Grande north from El Paso and to the thirty-second parallel of latitude, as corresponding with the course as depicted on the Emory and Salazar Maps No. 29 (so far as those Maps extended). It is inconsistent with the course of the river contended for by the plaintiff; for it shows the river far to the west of the Fort Fillmore Road. This Map is particularly significant, by reason of the fact that it was made by engineers who were actually at work and surveying on this wagon road in 1857, only seven years after 1850. Such engineers would have been unlikely to depict the river as far west of the road, if, as the plaintiff contends, the river ran comparatively near to the road on the eastern margin of the valley.

(d) *The Parke, Pope and Clark Maps*

Defendant's Exhibit No. 9 is a Map prepared by the War Department, in the course of exploration and surveys for a railroad route to the Pacific Ocean, in 1854 and 1855. It delineates the Rio Grande, from Fort Fillmore to the parallel of 31 degrees 47 minutes. A note upon the Map states that "the positions of Frontera, El Paso, Fort Fillmore and Tucson and the Topography along the Mexican Bound-

ary line were furnished by the Office of the United States—Mexico Boundary Commission, Maj. W. H. Emory Commissioner." The Map is on too small a scale (1 to 760,320 or twelve miles to an inch) to be of much value; but the course of the Rio Grande is shown substantially as on the Emory Map No. 29. This, however, appears in Executive House Document No. 129, 33d Cong., 1st Sess., (not introduced in evidence) containing the "Report of the Secretary of War communicating the several Pacific Railroad explorations," in three volumes, in 1855, and is there reproduced on a larger scale of five miles to an inch—on which scale the course of the Rio Grande as depicted is more apparent.

Defendant's Exhibit No. 10 is another War Department Railroad Route Survey, made in 1854 and 1855. This Map, on the very small scale of 1 to 950,400 (or 15 miles to the inch), appears also in Executive Document No. 129 (above cited), where it is reproduced on the larger scale of 1 to 633,600 (or 10 miles to the inch); and the course of the Rio Grande, between the parallels of 32 degrees and 31 degrees 47 minutes, as delineated on the latter Map, is shown as several miles west of the Fort Fillmore road.

As to these Railroad Survey Maps, Major Emory in his official Report, prefatory remarks, p. XIV said, in 1856:

"Since the orders first given for this work which contemplated in addition, an exploration of a route for a railroad, a series of surveys have, by Act of Congress, been organized under the War Department for the purpose of ascertaining the best railroad route to the Pacific Ocean. All the information derived from the survey of the boundary line, including astronomical determinations, topography, and barometrical levels, have been placed at the disposal of the War Department in reference to its researches as to the routes for the railway."

Defendant's Exhibit No. 61 (Record 3773, red number 5727) is John H. Clark's Map No. 1 of his survey of the 32d Parallel in 1859-1860, as published in Senate Document No. 70, 47th Cong., 1st Sess., in 1882. The original of this Map cannot now be found in the Government files; but on the copy reproduced on a small scale in the Senate Document, the course of the Rio Grande is delineated in a

manner inconsistent with the plaintiff's contention, except possibly near Frontera. It is to be noted that while Clark's survey of the parallel was not intended to include any survey of the course of the Rio Grande from Frontera to the parallel, he was, nevertheless, obliged, as part of his survey, to triangulate the country between these points in establishing his meridian. Moreover, he was instructed by the Secretary of the Interior as follows (Senate Executive Document No. 70, supra, p. 265):

"As soon as the boundary shall have been ascertained and marked, you will cause a true and accurate map to be made of the country through which it passes in its extent, embracing as much topography of the adjacent country as is possible to obtain. * * *"

Clark, furthermore, had been one of the surveyors working under Major Emory in the surveys of the Rio Grande in 1851-1852, under the Treaty of Guadelupe Hidalgo, and in 1854-1855 under the Gadsden Treaty; and consequently must have been entirely familiar with the river in this locality.

I find that all the above Maps sustain the defendant's contention as to the course of the Rio Grande in 1850, and are inconsistent with the plaintiff's contention.

V

Conclusions as to the Location, Course, and Width of the Rio Grande in 1850

(1) Course and Location

On all the evidence in the case, I find that the allegations in the plaintiff's bill of complaint, as to the location and course of the Rio Grande, "as it existed in the year 1850", are not sustained, and that the river did not flow on the eastern side of the valley as set forth in the plaintiff's Pleading Map.

I find the location and course of the Rio Grande "as it existed in the year 1850" to have been, in general, as alleged in the defendant's cross bill, and, in particular, as follows, on the dates nearest to 1850 of which there is credible evidence.

The earliest date at which there is definite evidence of the location and course of the river at the thirty second parallel is January, 1859, when John H. Clark made his survey of the parallel, at which time he located his Monument No. 1, 600 feet east of the east bank of the river. In August, 1860, Anson Mills made his Texas Surveys No. 161 and 162, at which time the east bank of the river was only 428 feet (154 varas) east of Monument No. 1, the river having shifted to the eastward 172 feet, between January, 1859 and August, 1860.(1) I find that the location of the east bank and of the course of the river of 1850, from the thirty second parallel to a point a few hundred feet northwest of the northernmost point on the Salazar-Diaz Survey of 1852, was its location and course shown on the plats and field notes of Texas Surveys No. 161 and 162.

Between the extreme southwestern corner of Survey No. 162 and the northernmost point of the Salazar-Diaz Survey, there is a gap of a few hundred feet. The location of the east bank and of the course of the river for this gap, I find was that shown on the plat and field notes of Texas Survey No. 35, a survey made on October 4, 1849.(2)

The location of the west bank and of the course of the river, in 1852, from the northernmost point of the Salazar-Diaz Survey to the point called Frontera and thence to the Canyon, I find was that shown by the triangulation, traverse, and field notes contained in the Salazar-Diaz Survey (substantially as reproduced on Defendant's Exhibit No. 70, Record 3373, subject to any necessary corrections on that reproduction as to the proper magnetic variations).

The location and course of the river through the Canyon, in 1850, I find was the same as its location in 1913 (the date when the bill of complaint was filed).

The location of the west bank and of the course of the river, in 1852, from the southern end of the Canyon to the International Boundary Line, viz., to the parallel of 31 degrees 47 minutes north latitude, I find was that shown by the Salazar-Diaz Survey.

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(1) See Surveys No. 161 and No. 162 and Resurvey of No. 162, Defendant's Exhibits No. 16, 16a, 17, 17a, Record, 3223-3228.

(2) Defendant's Exhibit No. 15, Record 3222, red nnumbered pages 3467, ant's Exhibits No. 16, 16a, 17, 17a, Record 3223-3228.

(2) Width

Such being the location and course of the river, there remains the question of the location of the middle of the channel, i. e., of the width of the river. Since there are no signs of the river now on the ground, and no maps extant which assume to depict its actual width, in 1850-1860, the location of the middle of the channel becomes a matter for more or less arbitrary estimate by the Court. Data, however, as to its width, in 1852, at nine specific points, are to be found in the notes accompanying the traverse contained in the Salazar-Diaz Survey. Such notes contain the following information:

At R X, station 3, which is just above White's Ranch, the width was 180 metres (about 590 feet) "embracing both branches."

At R XI, Station 8, which is about in the middle of the Canutillo Grant, the width was 90 metres (about 293 feet).

At R XI, Station 9, which is just below Cobrena, the width was 304 metres (about 995 feet) "through the islet."

At R XII, Station 3, which is about opposite New Canutillo, the width was 80 metres (about 262 feet).

At R XII, Station 10, which is north of the Canutillo Grant opposite the middle of Texas Survey 169, the width is 200 metres (about 655 feet) "embracing both branches of the islet at its greatest breadth."

At R XII, Station 12, which is opposite Texas Survey 166, and opposite the town of Vinton, the width is 150 metres (about 491 feet).

At R XII, Station 13, which is opposite the south end of Texas Survey No. 165, the width is 250 metres (about 819 feet) "at the greatest breadth of the islet, embracing the two branches."

At R XII, Station 20, which is above the south line of Texas Survey 35 and opposite the place known Tres Alamos, the width is 60 metres (about 197 feet).

At R XII, Station 21, which is west of Station 20, the width is 200 metres (about 655 feet) "embracing both branches."

The points where widths are given as embracing two branches of the river or across an intervening islet may be eliminated, since the width of the separate branches and

of the islets is not ascertainable. There remain however, four points on the river at which its width was 293, 262, 491, and 197 feet respectively, or an average of 311 feet.(1) Evidence has been given by the engineer witnesses as to the ordinary width of the river. Richard J. Owen testified that the ordinary width of the channel of the river, in the years since he had surveyed in the neighborhood (i. e., since 1900), was from 200 to 400 feet (Record 2681; Additional Testimony 29):

"Of course, at places—the sharp bends, where it curves in sharply—the river proper—the water, at normal, is quite narrow, where it comes in towards the sandbars, while out a few hundred feet away, you often find it from three to four hundred feet. The average would run, I should say, about three hundred feet. Two hundred and fifty to three hundred feet—this river."

Owen also estimated the width of the river at the 32d parallel, in 1859, to have been 472 feet (Record 2673). Charles L. Post represented the river, on the plaintiff's Pleading Map, as 400 to 600 feet wide; but he testified that that was "just an approximation," as he was not in a position to know what the width of river was in 1850 (Record 1851-1852, 2900). J. L. Campbell testified that a channel "to carry the flood waters of the Rio Grande would have a normal width of about 300 feet" (Record 2518).

As a result of the above testimony and of the notes in the Salazar-Diaz Survey, I believe that it would be fair to estimate the average width of the river, in 1852, as 300 feet, and, therefore, to fix the middle of the channel throughout its course as 150 feet from the line of its east bank (where that is shown by the maps or plats), and as 150 feet from the line of the traverse of its west bank in the Salazar-Diaz Survey.

VI

Accretion and Avulsion

The location and course of the river in 1852 being as thus found by me, the question next arises; what, if any, accretive or avulsive changes occurred prior to the date of the

(1) Defendant's Exhibit 12, 12a, Record 2382-2385; Defendant's Exhibit 71, Record 3384, pages 45-49 of the memorandum.

filing of the bill of complaint in 1913? But there is a preliminary question for consideration, namely: whether the ordinary rules of law as to accretion and avulsion in State boundary controversies are applicable in this particular case? For here, unlike the usual case, each party in its pleadings has made the specific allegation that the channel of the Rio Grande as it existed in 1850 was "*and now is* the boundary between the State of Texas and the State of New Mexico," (italics mine); each party asks that the boundary line be decreed to be the middle of the channel of the Rio Grande as it existed in 1850 and as shown on its respective Pleading Map; and the plaintiff specifically alleges that "said boundary has remained unchanged to the present time." The defendant contends that these pleadings constitute an admission that all changes in the river since 1850 had been avulsive; and that throughout the hearing (from November 10, 1913 to November 26, 1918, when the case was closed), the case was tried on the theory that the location of the channel of the river of 1850 was the only issue in the case, that all changes since 1850 had been avulsive, and that the question of accretion was not involved. I assume that private litigants, in an ordinary case, might, under similar pleadings, be estopped from controverting allegations so pleaded. But this Court has frequently stated that suits between States are not to be treated in a technical manner, so that, as was said in Virginia v. West Virginia (1914) 213 U. S. 117, 121, "there may be no room for the slightest inference that the more restricted rules applicable to individuals have been applied to a great public controversy, or that anything but the largest justice after the amplest opportunity to be heard has in any degree entered into the disposition of the case." I consider that the allegation in the pleadings that the channel of the river as it existed in 1850 "now is the boundary" is to be interpreted as meaning the channel of the river as it existed in 1850 subject to the well settled principles as to accretion and avulsion which this Court has laid down in State boundary cases. (See also Missouri v. Nebraska (1904) 196 U. S. 23, 36, 37.) Such must certainly have been the interpretation placed upon the pleadings by this Court; for, by its order of April 14, 1924, it expressly permitted the plaintiff to take additional testimony on the subject of accretion, with reference to a

limited section of the river (flowing around what is known as the Country Club property); and its order was based on a motion by the plaintiff, accompanied by an affidavit that the additional testimony of R. J. Owen was desired for the specific purpose of proving an accretive change. The preliminary question, raised by the defendant, being thus disposed of, I find the following facts with respect to accretive and avulsive changes in the course of the river, between 1852 and 1913 (the date of the filing of the bill of complaint).

While some evidence as to accretion has been introduced by each party, incidentally to other proof, the bulk of the evidence seems to bear upon the question of avulsion. The Rio Grande in this locality has been a river peculiarly susceptible to avulsive change. Its channel in normal times is very shallow, carrying small amounts of water. Its bed is through a sandy soil. Prior to the building of the Elephant Butte Dam (in the years 1912-1915) 140 miles north of El Paso, there were almost annual floods in April-May caused by the melting of the snow in the mountains; and frequently, in September and October, there were other floods caused by cloudburst or heavy rainfalls. The water from these rain-floods poured down arroyos from the sides of the river, bringing much sand and detritus, and, on occasions, it filled up the shallow main channel of the river or created bars or obstacles, so that, when the next spring flood occurred, the river on subsiding sought a new channel. The river in flood times carried much detritus and 20 to 25 per cent of silt or mud, which, in subsidence, was deposited on the banks, but which was also, at times, so deposited in the former channel as to oust the river into a new channel. In 1854-1855, the geologist of the Parke expedition reported that "the variability of the current and the body of water carried down leads to a continual shifting of the bed of the river." An examiner of surveys in the General Land Office, detailed to make an astronomical investigation of the Texas, New Mexico and Oklahoma boundaries, reported to the Secretary of the Interior, in 1905, that "during the dry season, as in November, 1903, there is almost no flowing water; during freshets the stream is often several mile wide, and in resuming a normal flow, often settles into a channel a considerable distance from its last previous

channel."(1) Van Patten, a witness for the plaintiff, testified that "It was changing backwards and forwards in '64 to '84. * * * since '64 it has been changing backwards and forwards all the time." Henry A. Keizer, a witness for the defendant, testified that " when it was high and then would go down, we never knew where we were going to find the river." Richard J. Owen, engineer witness for both plaintiff and defendant, testified that changes in the river course usually occurred at flood times, and that it was a common occurrence to find the river channel greatly changed after the flood waters had receded.(2) The presence of the innumerable old channels through the valley, testified to by witnesses for both parties, constitutes ample proof of frequent avulsive changes; though not all these channels were remnants of past main channels, many of them being merely minor channels through which the flood waters drained off. Many of the old channels, once occupied by the river, became filled up with sand brought down by the river itself or by the torrents from the arroyos from the margin of the valley.

Such is the general nature of the habits of the Rio Grande. But it is not easy, from the evidence, to determine in all instances whether any particular change in the river's course was or was not avulsive. Under these circumstances, I have assumed that this Court, in Oklahoma v. Texas, 250 U. S. 606, 638, has held that the party asserting an avulsive change has the burden of proof:

"Common experience suggests that there probably have been changes in this stretch of the Red River since 1821, but they cannot be merely conjectured. The party asserting material changes should carry the burden of proving them, whether they be recent or old. Some changes are shown here and conceded. Others are asserted on one side and denied on the other."

Where it is proved that the river had a certain position in one year and another position in a subsequent year, there is a presumption that it reached its later position by accretive change, unless it is proved that the change was caused by

(1) See Report of Arthur D. Kidder, House Document No. 250, 59th Cong., 1st Sess.

(2) Record, Additional Testimony, p. 24, 25; see also testimony of Owen, Record 2665-2666.

avulsion. I further assume that avulsion cannot be proved by mere conjecture, probability, or general habits of the river, but that it must be established by definite evidence.

In considering the evidence in the case on the subjects of accretion and avulsion, it will be convenient to take up separately (a) the course of the river from the 32d parallel to the southwest corner of the Canutillo Grant; (b) its course from the southwest corner of the Canutillo Grant to the southwest corner of the Country Club property; (c) its course from the southwest corner of the County Club property to the Piedras Paradas and Frontera, and from Frontera to the present International Boundary Line.

(a)

As to the first section of the river from the 32d parallel to the south line of the Canutillo Grant, there is considerable evidence both of accretion and avulsion.

Beginning at the 32d parallel, it appears (as discussed supra p. 76) that between 1859 when Clark made his Survey, and 1860 when Mills surveyed Texas Survey No. 161, the river had shifted to the east 172 feet, i. e., Mills found Clark's Monument No. 1 to be only 428 feet (154 varas) from the river, instead of 600 feet. I find that this change was accretive.

Beginning at the north end of the Salazar-Diaz Survey (at Station R XIII) which is located about four-fifths of a mile south of the 32d parallel I find that there is evidence of accretive changes in the course of the river as located by that Survey, both to the eastward and to the westward. These changes are apparent from the location of the river as it is shown as a western boundary of various parcels of land on the plats accompanying Texas Surveys No. 35, 34, 163, 164, 165, 171, 172; and on the plat accompanying Texas Survey No. 172; and on the plat accompanying Survey No. 173, which is Anson Mills' Survey of the Canutillo Grant.(1) These accretive changes occurred between the

(1) See Record 3237, 3241, 3345, 3248, 3251; Record 3222, red numbered page 5501; Record 3273; Record 3222, red numbered page 5503.

Between 1849 when Surveys No. 35 and 34 were made, and 1860, when Survey No. 162 was made, there had been an accretive change; for the field notes of the latter Survey refers to the upper corner of Survey No. 35 "the entire former bank of the river having been washed away." So also between 1849 and 1860, the river line of Survey No. 34 was washed away, see Record 3029, 3031-3036; field notes of Survey No. 163, Record 3245, 3222 red numbered page 5497.

years 1852 when the Salazar-Diaz Survey was made, and 1860 when most of the other Surveys were made. Whether the plats above referred to are on sufficiently large scale or in sufficient detail to make it possible for engineers now to trace on the ground the accretive changes shown on them is a question which I find it impossible to decide.

It is agreed by both parties, and I so find, that, in 1862 or 1864, there was a violent avulsive change in the course of this section of the 1852 river, by which the river was swung over to the westward, nearly to the extreme western margin of the valley; and this avulsive change apparently applied to its course from the 32d parallel to as far south as the Cobrena Bend and to the southwest corner of the Canutillo Grant.(1) Later, after 1864, and notably in 1884, there were avulsive changes which swung the river back again to the eastward.(2) In 1889, it is certain that the river was flowing back to the east in approximately the position shown by the Salazar-Diaz Survey, except that on Surveys 35 and 34 it had extended still farther east nearly to the Santa Fe Railroad track. In that year also, there existed a long slough or minor channel, filled with water, and flowing straight down the eastern margin of the valley in almost exactly the course in which the plaintiff's witnesses located the river of 1850. All this appears on a map, dated September, 1889, which was not introduced in evidence by either party, but which is found on page 330 of the Government document entitled "Department of State, Proceedings of the International (Water) Boundary Commission, United States and Mexico, Treaties of 1884 and 1889, Equitable Distribution of the Waters of the Rio Grande, United States Section, Anson Mills, Brig. Gen. U. S. A. retired, Commissioner, W. W. Follett, Consulting Engineer, W. W. Keblinger, Secretary, Washington, Government Printing Office (1903) Vol. 2." I file with this Report a photostat

(1) The course of the river in 1873 at the Canutillo Grant might probably have been shown; for there was a survey of that Grant made in that year by J. W. Tuys (see Record 2737), although neither party in this case introduced it in evidence.

(2) It is probable that an avulsive change back to the eastward occurred prior to 1873; for in that year a resurvey of Survey No. 162, showed the river as its western boundary, though farther to the west than in 1860; see Defendant's Exhibit No. 15, Record 3222, red numbered page 5487; Defendant's Exhibit No. 17a, Record 3228.

copy of this map (in two sections) marked Master's Exhibit No. 2.

Before 1903, the river had swung back again to the extreme western margin of the valley, as appears on a Government Map, being Map No. 4763 in the Hydrographic Branch of the United States Geological Survey, entitled, "U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr., in charge, J. A. French, Topography by E. D. Hendricks, Triangulation by G. E. Stratton (1903) Scale 1 to 12,000," This Map was not introduced in evidence, although a Map which was probably based upon it was offered by the plaintiff as Plaintiff's Exhibit No. 281 (Record, Additional Testimony, 66) and a partial copy of it was introduced as Plaintiff's Exhibit No. 21. I file with this Report a photostat copy of this Map (in four sections), marked Master's Exhibit No. 3.

Between 1903 and 1912, the river again swung back to the eastward and to the extreme eastern margin of the valley, where it was flowing in 1912-1914.

I find that all these changes after 1862 were avulsive. No changes, whether accretive or avulsive, can be held to affect the course of a river as a legal boundary, subsequent to the first avulsive change after it became a boundary (unless the river returns to its former bed.) Nebraska v. Iowa (1892), 143 U. S. 359, 370; Arkansas v. Tennessee (1918), 246 U. S. 158, 173. I conclude, therefore, that, for the section of the river extending from the 32d parallel to the south line of the Canutillo Grant, the boundary line between Texas and New Mexico was not changed after 1862-1864, but that, owing to the avulsion of 1862-1864, it remained and now remains as found by me on page 76 of this Report, subject to the specific accretive changes described by me as taking place prior to 1862-1864, so far as such accretive changes can now be identified or fixed upon the ground.

(b)

The portion of the river from the south line of the Canutillo Grant to the southwest corner of the Country Club property was that regarding which this Court, by its order of April 14, 1924, allowed the plaintiff to introduce the testimony of Richard J. Owen as to accretive changes.

This testimony was confined, according to the statement of the witness, to the river "between the southwest corner of the Canutillo Grant and the line across the river at the Country Club bridge—extending around the neighborhood of the present Country Club grounds, and turning to the west and intersecting the river," at station 32 as shown on Owen's Map (Plaintiff's Exhibit 280). The plaintiff maintains that, if the river ever flowed in 1852 in the course alleged by Texas, then the course in which it was flowing in this locality, prior to 1905, was the result of an accretive change; and more particularly that it was due to accretion and not to avulsion that the river made the large bulge or bend to the eastward which appears on the Owen Map, extending out from the western margin of the valley and crossing Texas Surveys 262, 261, 260, 259, 157, 156, in an almost due easterly direction across the valley until it reached a point about one half a mile west of the railroad track near White's Spur on the eastern margin of the valley, and then bending back to the western margin again. (This bend may be conveniently seen as shown in yellow ink on the full size copy of Texas Map No. 3, Defendant's Exhibit No. 65, reduced in size in the Record, which I have filed with this Report as Master's Exhibit No. 4.) As it was admitted by both parties that, in 1905 and 1909, the river made avulsive changes here back to the west, the plaintiff contends that this County Club bend, being the result of accretion, remains now the boundary line, unaffected by the 1905 and 1909 avulsions. The defendant contends, on the other hand, that the river did not flow, prior to 1905, in the bend as shown on Owen's map; and, further, that if it ever did so flow, it reached that location by avulsive and not accretive change.

Before discussing Owen's testimony, I call the Court's attention to the facts that there were evidently changes in the course of the river, between the Salazar-Diaz Survey in 1852, and the years 1859-1860 when Texas Surveys 154, 155, 156, 157 and 158 were made; and also between the years 1859-1860, and the year 1871 when Texas Surveys 259, 260, 261 and 262 were made; and between the years 1859-1860, and the year 1873 when Texas Surveys No. 155 and 157 were resurveyed. As no definite proof of avulsion, however, has been introduced in evidence, I find that

these changes in this section of the river were accretive (through it is probable that they are not now capable of being definitely traced or located). Between 1871 and 1904, it seems probable, from the known habits of the river, that there were avulsive (as well as accretive) changes in the course of this section of the river; but no definite proof of avulsion was introduced in evidence, until the testimony introduced under the order of this Court of April 14, 1924. Under that order, the plaintiff sought to prove that the bend of the river back to the eastward around the Country Club property was caused by accretion. The defendant sought to prove that the bend was the result of avulsion. The plaintiff offered the testimony of Richard J. Owen. This witness testified under somewhat singular circumstances; for he had previously testified as a witness for the defendant, in 1913-1914, and as an engineer in its employ; he had then testified as to extensive surveys of the whole valley made by him for the purpose of this suit, and as to the tracing out by him on the ground of an old river channel or river bed, "very clear and distinctly marked," running along the western margin of the valley which he termed the "River of 1905," i. e., an old channel occupied by the river previous to 1905, and abandoned in 1905; this "River of 1905" he had set forth on a Map termed "Map No. 3 Texas." (Defendant's Exhibit No. 65); when he testified in 1924 (ten years later), being then placed on the stand by the plaintiff, he stated that he considered himself "as absolutely neutral character * * * not testifying for either the plaintiff or the defendant;" that he reaffirmed all the testimony which he had given in 1914; but that his previous testimony had not applied specifically to the location of the river of 1905 at this point; that after he testified for the defendant in 1914, he was employed by L. M. Crawford (the amicus curiæ in this case), in 1923, to survey land claimed to be owned by Crawford; that, in making this survey, he followed the field notes contained in a previous survey and the lines laid down in certain deeds to Crawford from the Santa Teresa Land Company in 1911; that he checked up the field notes at different stations which he knew; that he also followed on the ground, and retraced, certain depressions or sloughs or old river beds, which corresponded with the field notes

and with the descriptions in the deeds; and that his survey, as so made, convinced him that the river of 1905 (i. e., the river as it flowed prior to 1905) followed the course in this locality which he platted in September-October, 1923, on his Map (Plaintiff's Exhibit No. 280, Record, Additional Testimony, 66), and that the river of 1905 did not flow in this locality, as shown on his previous Map (Defendant's Exhibit No. 65). He did *not* testify, however, that he himself had actually seen the river running, prior to 1905, around the bend shown on his Map or to the east of the location of the Country Club.(1) In his affidavit, supporting the motion to take his additional testimony, he had stated on oath that "the indications on the ground" were that "the river, if in 1852, it occupied the position claimed by Texas, then it changed its position to the position occupied by it in 1905, within the Territory above indicated by gradual changes through accretion, and not by an avulsive change." In his testimony, he expressed his opinion that the change was accretive but admitted a possibility of an avulsion. He based his opinion on the aspect of the territory in question and on the lack of old channels or old cottonwood trees west of the bend, although he stated that he had made no test or examination of the soil, i. e., to determine its nature and the manner of its deposit.

In addition to Owen's testimony, the plaintiff offered in evidence certain deeds to Crawford and also a "Map of the United States Reclamation Service Rio Grande Project, New Mexico-Texas, Map of Mesilla Valley, showing various known river channels," dated September, 1914.(2) In view of the fact that the order of this Court of April 14, 1924 limited the plaintiff to the taking of the testimony of Owen, I find that these deeds and the Reclamation Service Map

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(1) He testified that, in 1900-1902, he had seen the river running within the vicinity of certain other surveys (Texas Surveys No. 261, 282, which were north of the initial point of this bend) and had meandered the bank and that "it was actually the main channel of the river then;" but this testimony did not apply to the river in the bend.

(2) Plaintiff's Exhibits 282, 285, 281, Record, Additional Testimony 52, 55, 56. The Plaintiff contended that the Reclamation Service Map was identical with a map previously introduced at the hearings, in 1914, as Plaintiff's Exhibit No. 21; but I find that said Exhibit was testified to in 1914 as being only a partial and not a complete copy, made by plaintiff's engineer, Post, of the map on file in the Reclamation Office (Record 1799); and a comparison of the two shows this fact.

were inadmissible as evidence of any fact at issue, but that they were admissible solely for the purpose of allowing Owen to testify that the line of the 1905 River on his own Map appeared to correspond with certain lines in those deeds and on the Reclamation Service Map.

In rebuttal to Owen's testimony, the defendant introduced testimony of four witnesses. One had long lived within a few miles of the Country Club property and the others were familiar with it through passing, hunting, and fishing for many years in that locality. They testified that they had never seen any main channel of a river prior to 1905 in the position shown on Owen's Map and east of the Country Club house. They testified further as to the existence of an old slough or sloughs or river beds east of the Country Club; also that there were old cotton wood trees west of the Country Club in the years prior to 1905.(1)

The evidence introduced by the parties as to accretion and avulsion is distinctly unsatisfactory. The plaintiff was restricted by the order of this Court to the evidence of one witness; and in view of the evidence in the case as to the habits of the river and as to the presence of numerous old channels in the river valley, I give very little more credit to the ability of a surveyor, than to the ability of the Indian witnesses, to identify any particular depression, slough or channel as being that in which the river flowed as its main channel in any particular year or years, unless the witness has a clear memory as to the actual location of the river, or unless the identification is supported by more or less contemporaneous maps prepared under such circumstances as to be properly credible. The defendant, on the other hand, did not introduce any maps showing the river at this point prior to 1905, although such maps, it seems to me, must have been available; and it would appear probable that there must have been other witnesses than those offered, more fully acquainted with the locality.

Fortunately, however, the Court may take judicial notice of certain Maps which throw light upon the question. I call its attention to the Geological Survey Map in 1903 de-

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(1) These witnesses also testified that there were two other witnesses, not testifying, who were particularly familiar with the locality, as to the capacity of one of whom I cannot refrain from recording the witness' opinion (Record 112):

Q. He is in his right mind and capable of testifying, is he not?

A. Well, I think he is. I have not heard anything to the contrary. I do not think he plays golf, so I think he is all right.

scribed by me (supra, p. 84) and filed herewith as Master's Exhibit No. 3. This Map shows the river in 1903, as located in substantially the identical position shown on Owen's Map (Plaintiff's Exhibit No. 280). I assume that the Court may also take judicial notice of the Map offered in evidence as Plaintiff's Exhibit No. 281, which is also a Government Map of this Mesilla Valley "showing various known river channels," on which the course of the river is evidently copied from the Geological Survey Map above referred to; and see also a publication of the Geological Survey entitled "Water Resources of the Rio Grande Valley in New Mexico and their Development, by Willis T. Lee," House Document No. 73, 59th Cong., 2d Sess. (1907), in which there appears a Map of Mesilla Valley, showing this same large bend opposite White's Spur (p. 42).

I call especial attention to the Map of the river as it flowed in 1889, contained in the report of the International (Water) Boundary Commission, described by me (supra, p. 83) and filed herewith as Master's Exhibit No. 2. This Map shows that, in 1889, there was a bend or bulge at the point shown for the River of 1905 on Plaintiff's Exhibit 280; but that this bend had not extended as far east as in 1903. In 1889, it had only crossed Texas Survey 157, whereas in 1903, it had moved to the eastward three quarters across the adjoining Survey 156. This would clearly seem to denote a progressive accretive change to the east. (See Oklahoma v. Texas (1923), 260 U. S. 606, 638-639.)

I do not find any evidence of sufficient weight to establish the fact of an avulsive change in this locality prior to 1905, in view of the testimony of Owen and of the above Maps; and I find, therefore, that the changes in the course of this section of the river have been accretive between 1852 and 1904, and that, since the first proved avulsion occurred after 1904, the location of the river in that year should be taken in fixing the boundary. This location, I find to be that shown on the Geological Survey Map in 1903, described by me (supra, p. 84) and filed by me herewith as Master's Exhibit No. 3.(1)

(1) See brief of L. M. Crawford, amicus curiæ, at page 35 for a Map on which the lines of the Geological Survey river of 1903 (taken from Plaintiff's Exhibit No. 281) are superimposed upon the lines of the river as shown by Owen on his Map (Plaintiff's Exhibit No. 280), both Maps being reduced to the same scale.

(c)

As to the section of the river running from the southwest corner of the Country Club property south to Piedras Paradas and from there to the point known as Frontera (which is the southern end of this portion of the Salazar-Diaz Survey known as R. X., Station 1), and from Frontera to the International Boundary Line, inspection of the Texas Surveys and Maps to which I have referred in my Report makes it evident that there have been many changes in the course of the river, between 1852 and 1913, There is evidence that some of these changes were accretive. From the known habits of the river, it is probable that others of these changes were avulsive. There is no evidence in the case, however, sufficiently clear or definite to establish the fact of an avulsive change or changes here. Consequently, I find that all changes, since 1852, have been accretive, and that the location of the river as it flowed in 1913 when the bill was filed should be taken in fixing the boundary.

VII

Final Conclusions and Recommendations for a Decree

Upon all the evidence, I find that the true boundary line between the State of New Mexico and the State of Texas, on January 31, 1913, when the bill of complaint was filed in this case, was as follows, beginning at the thirty second parallel north latitude and running south to the parallel of thirty one degrees forty seven minutes:

(a) The middle channel of a river whose east bank was located at said thirty second parallel at a point four hundred and twenty eight (428) feet west from Clark's Monument No. 1 as relocated by the Scott-Cockrell Commission, (or as relocated by the engineers of the State of Texas and found as a fact by me, in case the Court shall hold that the State of New Mexico is not conclusively bound by the action of the Scott-Cockrell Commission); thence south, following the line of a river whose east bank appears as the western boundary of land shown and described in the plats and field notes of Texas Surveys No. 161 and No. 162; thence south, following the line of a river whose east bank appears as the western boundary of land shown and described on the plat

and field notes of Texas Survey No. 35, to a point where the river was located at R XIII on the Salazar-Diaz Survey, as shown by the triangulation, traverse, field notes and other notes and comments therein contained.

(b) Thence in a southerly and southwesterly direction, the middle channel of a river whose west bank is shown by the triangulation, traverse, field notes and other notes and comments in the Salazar-Diaz Survey of 1852, beginning at the northernmost point of said Survey at R XIII, and following said Survey as far south as the southwestern corner of the Canutillo Grant, subject to such accretive changes as occurred prior to 1862 and as are shown on the plats and field notes of Texas Surveys No. 35, 34, 163, 164, 165, 171, 172, 173, so far as such changes are now capable of identification and reproduction upon the ground.

(c) Thence in a southerly, southeasterly and southwesterly direction, the middle channel of the river as shown upon the map No. 4763, in the Hydrographic Branch of the United States Geological Survey entitled "U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr. in charge, J. A. French (1903)," beginning at the southwest corner of the Canutillo Grant and running to the southwest corner of the Country Club property at Station 32 on the map of Richard J. Owen, constituting Plaintiff's Exhibit No. 280.

(d) Thence in a southeasterly direction, the middle channel of the river as it was flowing on January 31, 1913, from the last named point to the intersection of the river with the International Boundary Line at the parallel of thirty one degrees forty seven minutes north latitude.

I recommend that, as there is no definite evidence of the width of the river in 1850, except at the four points where the width of the river, exclusive of branches and islets, is given in the Salazar-Diaz Survey, this Court shall fix the width of the river for the purposes of the boundary as three hundred (300) feet, and the middle of the channel as one hundred and fifty (150)feet from the east and the west banks respectively as found by me.

It is possible that, as was said in Nebraska v. Iowa (1892), 143 U. S. 35, "upon these principles the parties may agree

to a designation of such boundary. * * * If no agreement is possible," then I recommend that a decree be entered and that Commissioners be appointed to run, locate and mark the boundary line upon the ground, in accordance with the above findings and recommendations and so far as it is possible now to identify and determine the accretive changes above referred to—the action of such Commissioners to be subject to review and approval by the Court.

Respectfully submitted,

CHARLES WARREN,
Special Master.

APPENDIX

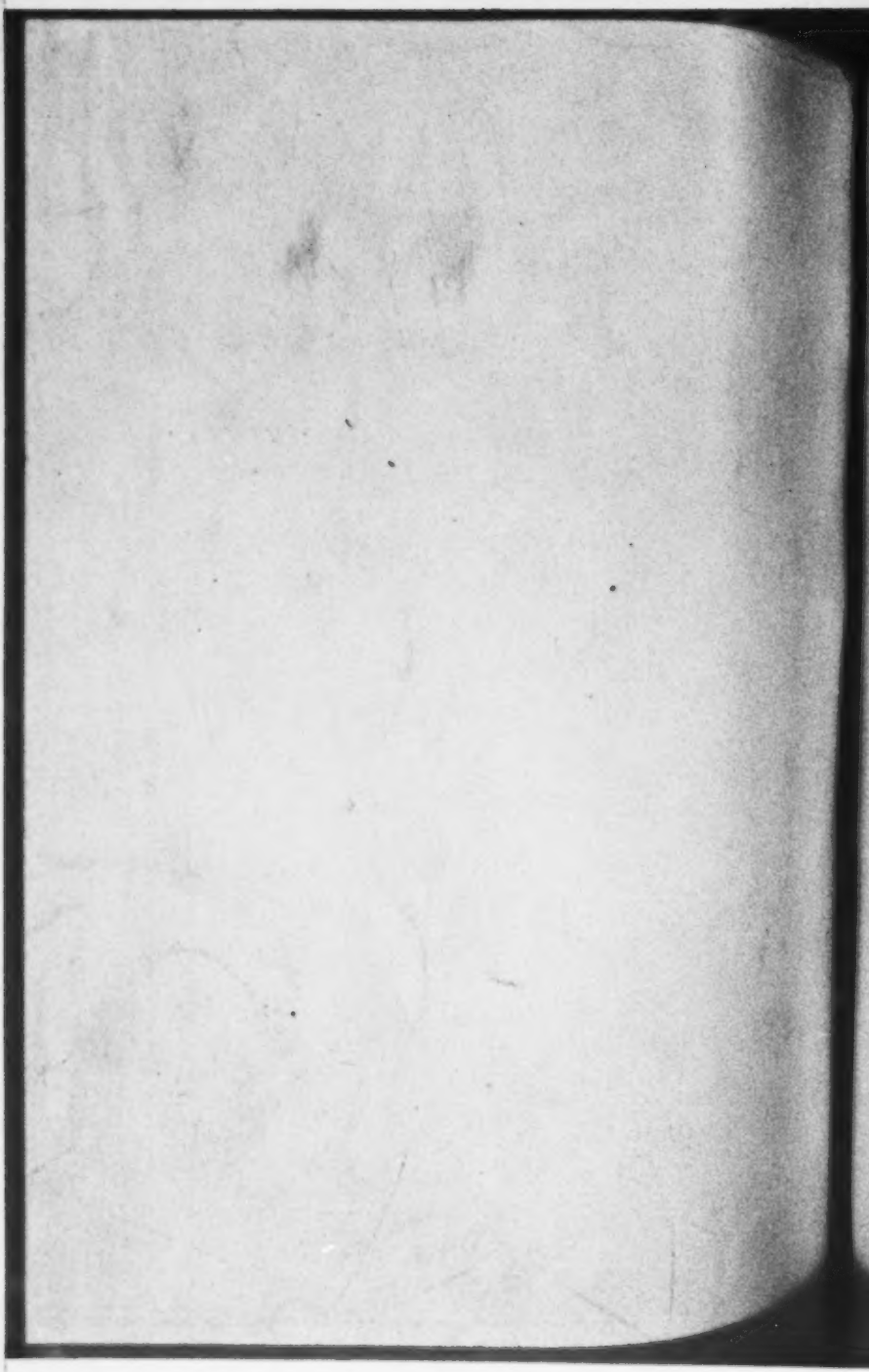
List of Maps Filed as Exhibits by the Master herewith

Master's Exhibit No. 1. Original copper plate engraved Emory Map, Map No. 29, full size and scale (furnished by the State Department).

Master's Exhibit No. 2, Photostat Copy (in two sections) of Map of the Rio Grande by W. W. Follett (1889) published in the Report of the Proceedings of the International (Water) Boundary Commission, United States and Mexico, Equitable Distribution of the Waters of the Rio Grande, United States Section (1903), Volume 2, page 330.

Master's Exhibit No. 3, Photostat Copy (in four sections) of Map No. 4763 in the Hydrographic Branch of the United States Geological Survey, entitled U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr., in charge, J. A. French (1903).

Master's Exhibit No. 4. Copy on linen of original of Texas Map No. 3, (reproduced on a smaller scale as Defendant's Exhibit No. 65, Record 3373.)



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WM. R. STANSBU
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In the Supreme Court of the United States

October Term, 1925

No. 3 Original

THE STATE OF NEW MEXICO,

vs.

THE STATE OF TEXAS.

EXCEPTIONS TO SPECIAL MASTER'S REPORT

In the Supreme Court of the United States

October Term, 1925

No. 3 Original

THE STATE OF NEW MEXICO,

vs.

THE STATE OF TEXAS.

Now comes the said complainant by its Special Counsel, and submits to the Court the following exceptions to the Report of the Special Master, filed April 21, 1926, of which he received a copy on May 17, 1926.

First, complainant excepts to said report because its findings and recommendations are not based on the record as heretofore made and printed as required by the Court but also upon numerous additions thereto made by the Special Master, as will appear by reference to pages 8, 9, 10, 11, 16, 17, 18, 34, 53, 60, 61, 65, 66, 68, 69, 70, 71, 73, and 80, and probably in other places, those pages specified being apparent upon a hasty examination of the Report, for the purpose of preparing these exceptions at the earliest possible day.

Second, complainant excepts to said report, because of errors therein as to matters of fact, and specifies as errors, found upon a cursory examination of the report, that it incorrectly states the Gadsden Treaty at pages 10 and 12; and incorrectly states at page 20 that there is controversy as to the location of Alamitos; and incorrectly states at page 19 that the Piedras Paradas are a group of high jagged rocks; and incorrectly states at pages 42-3, that from January 7 to 18, Clark was occupied in locating an astronomical observatory and ascertaining its latitude, and that the results of observations fixed the latitude of his observatory at 31° 59'

48.23", and the Special Master conjectures that, as this is 11.8 seconds south of the 32nd parallel, a measurement therefrom of 1,192.53 feet due north would reach the Initial point of his survey, when there is not a word in the record to support the statement that the observations resulted in fixing the latitude of an observatory as they fixed the latitude of the Initial Point at 31° 59' 48.23" north latitude, an error shown by a mere inspection of the record; and incorrectly states, at page 48 that it was admitted by Counsel at the hearing before the master that "occupancy and physical possession by Texas patentees and persons holding under them of the land in question its use, cultivation and enjoyment" "is unquestioned," when counsel for complainant have always insisted that there was no evidence whatever of any such possession of any of the said land; and incorrectly states at page 61 in effect that the Diaz report and survey contained the full survey of the river from the initial point at 32 degrees 22 minutes down to Frontera, when there is nothing in the record to support that statement and the alleged record of the Diaz survey shows a survey from Frontera up to Amoles, and nothing between Amoles and the said initial point; and incorrectly states at page 8, that the undiscoverable Radziminski survey was a survey of the Rio Grande between the parallels of latitude involved in this case while the record shows that the survey by Radziminski was only from Frontera to 32° 22'.

Third, complainant excepts to said report as conjectural in parts, as at pages 66-7, where it says that a statement that maps were made from actual survey, makes it extremely probable that the river and topography north of the parallel of 31 degrees 47 minutes must have have been delineated on Map No. 29 (Defendants Exhibit No. 6) from the survey made by Charles Radziminski, and in some of the places in the Report cited in the first of these exceptions.

Fourth, complainant excepts to said report because it states as a fact of apparent importance that counsel for complainant "waited until the very close of the evidence before objecting to"

the admissibility of the copy of the alleged record of the Diaz survey, when the record shows nothing of any intention then to close the testimony nor would it have been closed if either side had any more to offer.

Fifth, complainant excepts to said report because it approves the alleged Diaz record as genuine and sufficient to sustain the defense, but does not consider the undisputed evidence which shows that it discredits itself upon its face.

Sixth, complainant excepts to said report because, with regard to the meaning of the entry in Clark's record, quoted at page 40 of the report, no attention is given to the convincing lexicographical and other authorities cited at pages 7-8 of Part Two of the original Brief for Complainant which Brief was submitted to the Special Master.

Seventh, complainant excepts to said report because it erroneously finds, at page 41, that New Mexico upon its admission into the Union, accepted the lines established by the Scott-Cockrell Commission although no such lines, as to the disputed matter of the location of Clark's monument No. 1, were established until long after the adoption of the Constitution of New Mexico, and after the organization of the State government.

Eighth, complainant excepts to said report because it, in effect, recognizes the establishment of Clark's Monument No. 1, by the Scott-Cockrell Commission as absolutely correct, without any consideration of the undisputed testimony which shows that there was no attempt by that Commission to reestablish Clark's lines except as to Monument No. 1, and that its work was grossly inaccurate.

Wherefore complainant prays that said report be not confirmed but disapproved, set aside and held for naught.

All of which is respectfully submitted,

FRANK W. CLANCY,
Special Counsel for Complainant.

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WM. R. STANSBURY
CLERK

No. 1, Orig'l.

IN THE

Supreme Court of the United States

October Term, A. D. 1926.

In Equity.

THE STATE OF NEW MEXICO,
Plaintiff,

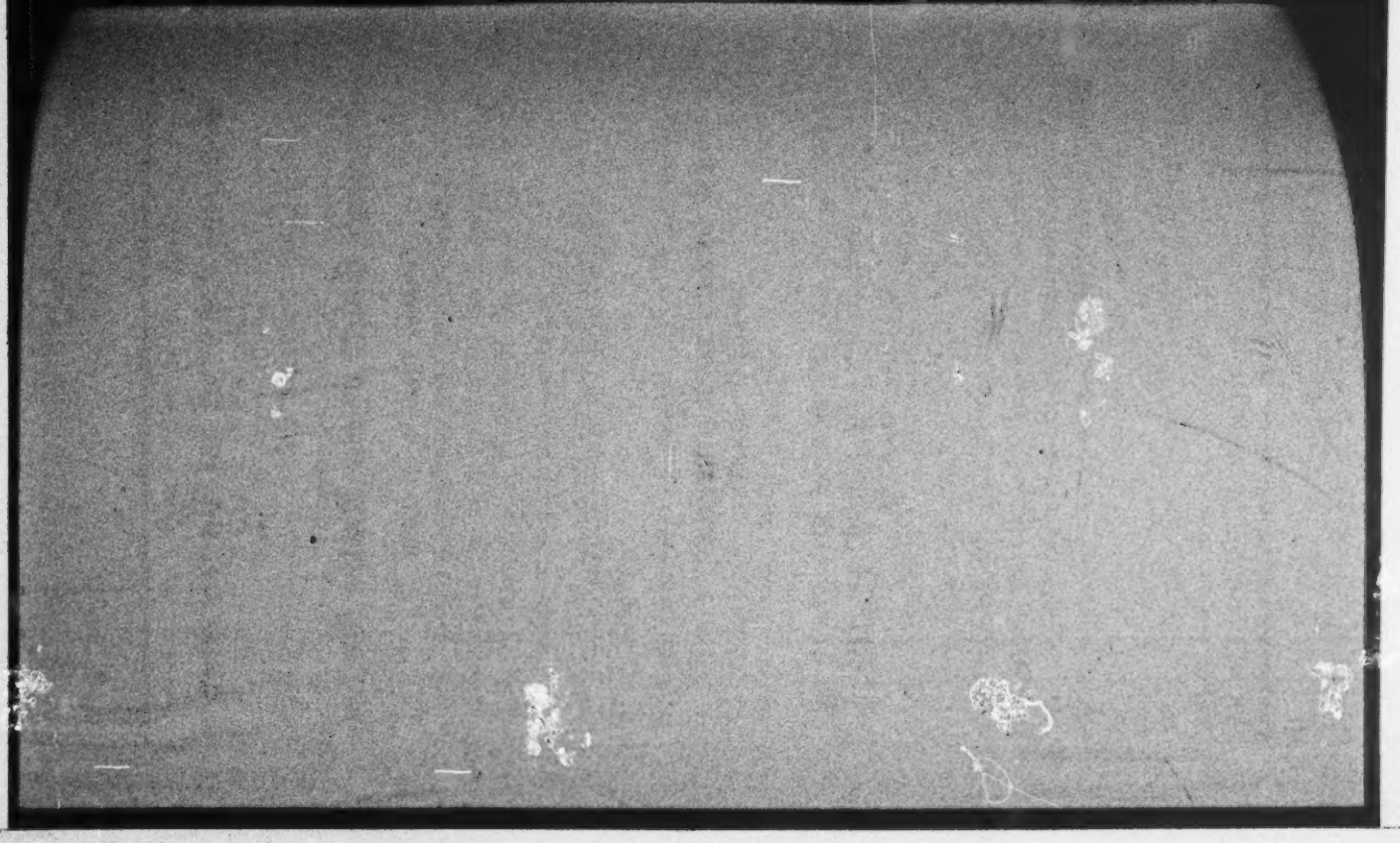
vs.

THE STATE OF TEXAS,
Defendant.

ADDITIONAL EXCEPTIONS OF THE STATE OF NEW MEXICO TO THE REPORT OF THE SPECIAL MASTER.

FRANK W. CLANCY,
Special Counsel for Complainant.

THORNTON HARDIE,
of Counsel.



IN THE

Supreme Court of the United States

October Term, A. D. 1926.

In Equity.

THE STATE OF NEW MEXICO,
Plaintiff,

vs.

THE STATE OF TEXAS,
Defendant.

ADDITIONAL EXCEPTIONS OF THE STATE OF NEW MEXICO TO THE REPORT OF THE SPECIAL MASTER.

Comes now the State of New Mexico and files these additional exceptions to the Report of the Special Master, which exceptions are to be considered only in the event this Court should sustain the findings of the Special Master as to the position occupied by the Rio Grande in 1850.

Claimant excepts to the findings contained in Paragraph (c) of "Final Conclusions and Recommendations for a Decree," as such paragraph appears on page 91 of the Report of the Special Master, which paragraph reads as follows:

> "(c) Thence in a southerly, southeasterly and southwesterly direction, the middle channel of the

river as shown upon the map No. 4763, in the Hydrographic Branch of the United States Geological Survey entitled 'U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr. in charge, J. A. French (1903),' beginning at the southwest corner of the Canutillo Grande and running to the southwest corner of the Country Club property at Station 32 on the map of Richard J. Owen, constituting Plaintiff's Exhibit No. 280,"

claimant's exceptions being as follows:

I.

Within the territory from the Southwest corner of the Canutillo Grant on the North to the point marked as "Station 47" just Northwest of the Country Club building site on the map of R. J. Owen, being Plaintiff's Exhibit No. 280, page 66 Supp. Rec. —, the evidence before the Master conclusively showed that if the Rio Grande was running as shown on "U. S. Geological Survey Map, J. A. French 1903" in the year 1903, then it continued to run in substantially but not the same position, without an avulsive change until the summer of 1905, when an avulsive change was made within this territory. The evidence also showed that a well defined river bed was left when the river changed its course in 1905. The evidence also showed that the location of this old river bed could be accurately arrived at from previous surveys and from appearances on the ground. The Master should therefore have recommended that the line within this District should follow the middle of the channel of this old river bed left when the river made its avulsive change in 1905. The Master should have either recommended the location of this center line from the testimony of R. J. Owen in connection with the field notes contained

in the Crawford deeds, being Plaintiff's Exhibits Nos. 282 and 283, or the Master should have recommended that a Commissioner be appointed to locate and mark the position occupied by the middle of the channel of this river of 1905, taking into consideration the French Map of 1903, the Crawford field notes contained in Plaintiff's Exhibits Nos. 282 and 283, and also the testimony of R. J. Owen and such other data on the ground as the Commissioner might think advisable.

II.

Within the territory around the Country Club bend and beginning at Station 47 and continuing around to the East of and then to the South and Southwest of the Country Club building site to Station 32 on Plaintiff's Map No. 280, the evidence conclusively shows that for at least five or six years there was no avulsive change in the course of the river, but that before the filing of the suit there had been an avulsive change in the river. The evidence also showed that the abandoned river channel can be definitely located on the ground. The Master should therefore have recommended that the Court establish the position of the center of said river channel from evidence in the record, or that the Court appoint a Commissioner to definitely locate on the ground the center of this abandoned river channel.

STATEMENT AND ARGUMENT IN CONNECTION WITH FIRST EXCEPTION.

The Special Master himself on page 89 of his report says:

"I find, therefore, that the changes in the course of this section of the river have been accretive be-

> tween 1852 and 1904, and that, since the first proved avulsion occurred after 1904, the location of the river in that year should be taken in fixing the boundary.."

But the Master immediately thereafter adds this statement:

> "This location, I find to be that shown on the Geological Survey Map in 1903, described by me (Supra, p. 84) and filed by me herewith as Master's Exhibit No. 3 (1)."

The map referred to was made in 1903 and the avulsive change occurred in 1905 within this particular area. R. J. Owen and other witnesses testified, and the Court judicially knows, that a river such as the Rio Grande is constantly changing by cutting on one bank and filling on the opposite bank. R. J. Owen testified that when the change was made in 1905, the river left a clearly defined channel with banks easily discernible. He testified that even at the time of the trial, this old channel could in most places be traced on the ground. He further testified that by reason of his long acquaintance with the vicinity he was able to trace this old river on the ground.

There were also introduced in evidence two deeds, Plaintiff's Exhibit No. 282, and Plaintiff's Exhibit No. 283 (Pages 52 to 55, Supp. Rec.)

These deeds called for a total consideration of $100,000.00 and the consideration was at the rate of $40.00 per acre. It was, of course, important that the surveys for the deeds should be accurate and the deeds contained what purported to have been field notes made by the County Surveyor of El Paso County, Texas. The field notes called for an old river bed in the territory now un-

der consideration. R. J. Owen testified that he checked up these field notes with the position of the river bed in 1905 on the ground and found that the field notes were correct, with an exception hereafter noted. (Supp. Rec.) These field notes, therefore, furnish an accurate guide to assist in fixing the boundaries within this particular territory. Looking on Page 60 of Supp. Rec., we find certain calls, as follows:

"48. N. 88° 55′ W. 702. 1 ft. Follow center of old river bed;
49. N. 74° 56′ W. 688.5 ft. Follow center of old river bed;
50. S. 86° 41′ W. 725.7 ft. Follow center of old river bed;
51. N. 71° 36′ W. 601.7 ft. Follow center of old river bed;
52. N. 65° 33′ W. 952.1 ft. Follow center of old river bed;
53. N. 61° 36′ W. 588.3 ft. Follow center of old river bed;
54. S. 59° 16′ W. 400.0 ft. Follow center of old river bed;
55. S. 48° 11′ W. 702.0 ft. Follow center of old river bed;
56. S. 80° 59′ W. 302.7 ft. Follow center of old river bed;
57. N. 88° 14′ W. 508.4 ft. Follow center of old river bed;
58. N. 82° 50′ W. 634.5 ft. Follow center of old river bed;
to West bank of slough."

These calls accurately fix the true boundary from Station 47 on Plaintiff's Exhibit to Station 58 on Plaintiff's Exhibit No. 280. We next find the following calls:

"59. N. 73° 25′ W. 364.4 ft. Follow W. bank of slough.
60. N. 78° 55′ W. 369.8 ft. Follow W. bank of slough.
61. N. 88° 20′ W. 239.2 ft. Follow W. bank of slough.

62. S. 86° 01′ W. 485.0 ft. Follow W. bank of slough.
63. N. 65° 00′ W. 353.0 ft. Follow W. bank of slough.

These calls follow the West bank of the river of 1905, and by running a parallel line approximately 150 feet distant from the above line and on the Easterly side, we should have the approximate center line of the old river bed, and hence the boundary between the two States from Station 58 to Station 63.

Turning to Page 59 of Supp. Rec. we find at the top of this page certain calls for "Connecting Hill Land No. 1," containing calls 1 to 9, inclusive. Calls 6 to 9 are to follow West bank of slough. (The old river bed was called a "slough" where it contained water).

Looking on Plaintiff's Exhibit No. 280, we find these calls 6 to 9, which form the East boundary of ("Connecting Survey No. 1, 6.74 acres"), as follows:

6. N. 36° 31′ West 449 feet
7. N. 34° 44′ West 488 feet
8. N. 22° 48′ West 849 feet
9. N. 56° 2′ West 118 feet.

The approximate true boundary here would be a line parallel to the the above line and 150 feet to the East. This would give the center of the old river, assuming, as the Master did, that the width was 300 feet.

Proceeding to the North we turn first to the calls 48 to 58, Page 57 Supp. Rec., reading as follows:

48 N. 13° 44′ W. 226.3 ft. Meander W. bank of running slough
49 N. 10° 07′ E. 456.2 ft. Meander W. bank of running slough
50 N. 44° 26′ E. 522.5 ft. Meander W. bank of running slough
51 N. 21° 56′ E. 224.4 ft. Meander W. bank of running slough

52 N. 1° 53′ W. 365.0 ft. Meander W. bank of running slough
53 N. 24° 12′ W. 420.6 ft. Meander W. bank of running slough
54 N. 23° 06′ W. 441.8 ft. Meander W. bank of running slough
55 N. 25° 46′ W. 312.0 ft. Meander W. bank of running slough
56 N. 27° 16′ W. 495.2 ft. Meander W. bank of running slough
57 N. 51° 23′ W. 300.4 ft. Meander W. bank of running slough .
58 S. 84° 12′ W. 183.5 ft. Meander W. bank of running slough

This gives us the West bank of the 1905 river from Station 34 to Station 46 on Plaintiff's Exhibit No. 280, the approximate true boundary being a line parallel to this and 150 feet distant on the East side.

We next, on Call 59, page 57 Supp. Rec., cross the old river to the East bank and proceed along the East bank for Calls 60 to 75, as follows:

60 S. 81° 25′ W. 182.5 ft. Meander W. bank running slough.
61 N. 60° 38′ W. 580.6 ft. Meander W. bank running slough.
62 N. 60° 56′ W. 639.5 ft. Meander W. bank running slough.
63 N. 42° 18′ E. 335.2 ft. Meander W. bank running slough, old river bed.
64 N. 73° 14′ E. 728.3 ft. Meander W. bank running slough.
65 N. 87° 50′ E. 161.0 ft. Meander W. bank running slough.
66 N. 73° 43′ East 663.8 ft. Meander W. bank running slough.
67 N. 6° 00′ W. 217.0 ft. Meander W. bank running slough.

68 N. 47° 03′ W. 522.9 ft. Meander W. bank running slough.
69 N. 61° 14′ W. 252.4 ft. Meander W. bank running slough.
70 N. 74° 16′ W. 467.6 ft. Meander W. bank running slough.
71 N. 68° 39′ W. 100.5 ft. Meander W. bank running slough.
72 N. 77° 14′ W. 401.6 ft. Meander W. bank running slough.
73 S. 89° 56′ W. 401.3 ft. Meander W. bank running slough.
74 S. 80° 46′ W. 197.9 ft. Meander W. bank running slough.
75 S. 84° 25′ W. 157.9 ft. Meander W. bank running slough.

These calls correspond to Calls 47 to 61, inclusive, on Plaintiff's Exhibit No. 280, and it will be noticed that where the old river has water in it it is referred to as "running slough" instead of "old river bed." To get the true boundary here we would take a parallel line 150 feet distant on the West side of these calls.

By following the procedure outlined above, we would have a very accurate boundary from Station 47 in a Northwesterly direction to the Southwest corner of the Canutillo Grant.

STATEMENT AND ARGUMENT IN CONNECTION WITH SECOND EXCEPTION.

The Master, on page 89 of his Report, made the following findings:

> "I find, therefore, that the changes in the course of this section of the river have been accretive between 1852, and that, since the first proved avulsion occurred after 1904, the location of the river

in that year should be taken in fixing the boundary. This location, I find to be that shown on the Geological Survey May in 1903, described by me (Suppra. p. 84) and filed by me herewith as Master's Exhibit No. 3 (1)."

As a matter of fact the river continued to run from Station 47 around what is the Country Club site to the East and South and Southwest of the Country Club to Station 32 until 1911, and according to the testimony and to the known habits of the Rio Grande, there were necessarily accretive changes between 1903 and 1911. The evidence also shows that the abandoned channel can be located on the ground. The center of this old river bed would be the true boundary.

The following calls appear in Crawford's deed, Plaintiff's Exhibit 283 (Suppra R. p. 60):

32 N. 22° 30′ W. 551.6 ft. Follow old river bed
33 S. 81° 30′ E. 121.6 ft. To corner White's fence
34 N. 44° 15′ E. 428.2 ft. Follow fence and road on edge of bosque
35 N. 49° 26′ E. 397.5 ft. Follow fence and road on edge of bosque
36 N. 54° 55′ E. 243.6 ft. Follow fence and road on edge of bosque
37 N. 65° 12′ E. 184.8 ft. Follow fence and road on edge of bosque
38 N. 86° 30′ E. 652.6 ft. Follow fence and road on edge of bosque
39 S. 33° 59′ E. 259.3 ft. Follow fence and road on edge of bosque
40 N. 86° 00′ E. 613.5 ft. Leave fence and cross present river
41 S. 23° 55′ E. 974.5 ft. Follow W. bank of present river
42 N. 87° 55′ E. 406.5 ft. Follow W. bank of present river

43 N. 61° 28′ E. 551.2 ft. Follow W. bank of present river
44 N. 45° 40′ E. 431.5 ft. Follow W. bank of present river
45 N. 00° 10′ E. 2288.8 ft. Follow W. bank of present river
46 N. 69° 33′ W. 409.0 ft. Follow W. bank of present river (fol. 95)
47 N. 38° 22′ W. 238.6 ft. Follow W. bank of present river to intersection with old river bed"

The witness Owen testified that the true position of the 1911 river was from Station 47 around North of the Country Club site, thence East, South and Southwest of the Country Club site to where the river line on the map meets what is now the position of the Rio Grande at Station 32 on Plaintiff's Exhibit 280. (See Question and Answer 341, page 49; and questions and answers 348 to 351, page 50, Suppra. Rec.)

The calls in the Crawford deed as above set forth differ from Owen's testimony in certain particulars. Call 45 in the Crawford deed is to follow a river bank on a course "North 0° 10′ E. 2288.8 feet." (On the owen map this is shown "North 0° 10′ E. 3288.8 feet." (A typographical error in the map).

According to Owen's testimony the actual bank is shown on Plaintiff's Exhibit 280 as passing around to the East of the Country Club building. Owen testified that this map was correct and showed where the actual river bed was and where it can be plainly seen today crossing the Country Club Golf Course, although it has been leveled down so it is only one and a half to two feet lower than the surrounding land. (See Questions and Answers 341, page 49, and Nos. 348 to 351, page 50, Supp. Rec.). Owen's position for the river in this bend is also sub-

stantiated by the French Map of 1903, which shows practically the same bend in the river running to the East of the Country Club. (See comparison of the Owen river and French 1903 river on Plat between pages 35 and 36 of the original Brief filed by L. M. Crawford as Amicus Curiae). Owen's map should clearly control over the Crawford field notes on this river bend. By examining Calls 30 to 40 in Crawford's Valley Land Survey No. 2, page 60, Supp. R., we see that Calls 32 to 39 were along the East bank of the Rio Grande, and that the calls get back on the West side on the 40th call, reading:

> "N. 86° 0' E. 613 ft. leave fence and cross present river"

It therefore appears that Owen's river line from Station 47 down the river around East of the Country Club and down to Station 44 and thence continuing down the river to Station 40, should be construed as showing the position of the West bank of the river, and from Station 39 to 32 should be construed as showing the position of the East bank of the river. Thus, the true boundary from Station 47 to Station 40 would follow a line parallel with and 150 feet Easterly from Owen's line for 1905 and 1908 river around the Country Club, and the true boundary from Station 39 to Station 32 would follow a line parallel with the Owen river line but 150 feet distant on the West side, or more accurately the North side of the Owen river line.

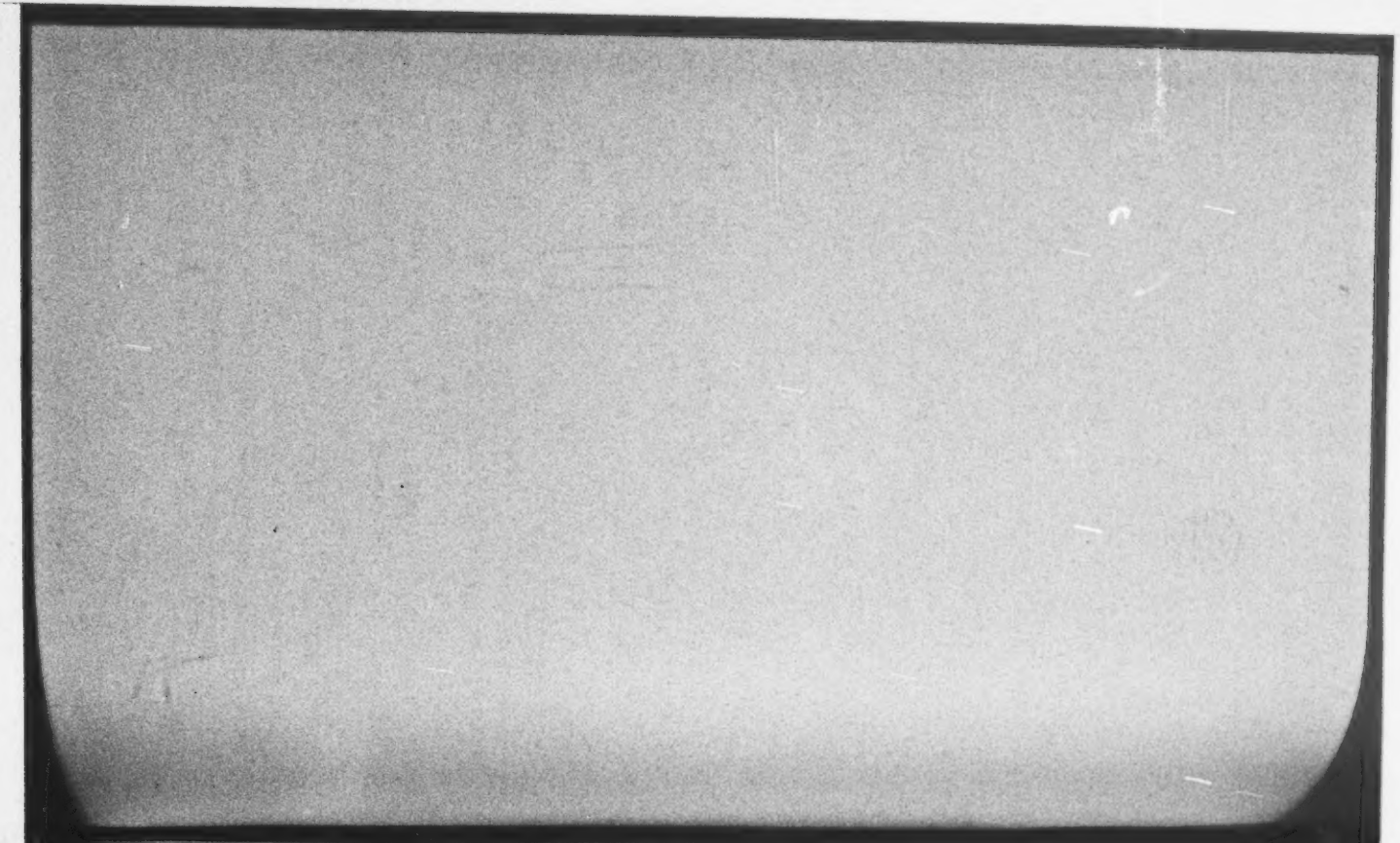
The line as indicated would give a very accurate boundary line, but the appointment of a Commissioner to follow the middle of the old channel on the ground would, of course, be the only means of getting an absolutely accurate boundary line.

The acreage which New Mexico would gain by following the lines as herein suggested, instead of the center of the 1903 river, would not be large. The line would, however, be much more satisfying in appearance on the ground. It would show verity in the physical appearance on the ground and convince those in the vicinity of the accuracy of the Court's judgment. The result would be much more satisfying to the Court. This Court would not desire a line to be arbitrarily fixed for the center of a river bed where an examination on the ground would show the true river bed located several hundred feet away. The inaccuracy of the Court's findings would be too apparent on the ground to be satisfying to this Court.

We respectfully submit these Exceptions for the consideration of the Court.

FRANK W. CLANCY,
Special Counsel for Complainant.

THORNTON HARDIE,
of Counsel.



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WM. R. STANSBU
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Brief for Complainant

In The Supreme Court of The United States

October Term, 1926.

Number 2, Original

THE STATE OF NEW MEXICO, COMPLAINANT

vs.

THE STATE OF TEXAS.

BRIEF FOR COMPLAINANT ON EXCEPTIONS TO THE SPECIAL MASTER'S REPORT.

FRANK W. CLANCY,
Special Counsel for New Mexico.

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In The Supreme Court of The United States

October Term, 1926.

NUMBER 2, ORIGINAL.

THE STATE OF NEW MEXICO, COMPLAINANT

vs.

THE STATE OF TEXAS.

BRIEF FOR COMPLAINANT ON EXCEPTIONS TO THE SPECIAL MASTER'S REPORT.

This cause was referred to a Special Master by an order made in December, 1924, which is quoted on the first page of the report, but will be repeated here as a matter of convenience for ready reference.

"It is ordered that this cause be referred to Charles Warren Esq. as a Special Master, with directions that he make special findings on all material questions of fact and report the same to the Court, with his recommendations respecting the decree to be entered. The Master shall accord to the parties a full hearing on all questions in the cause, whether of fact or of law, and shall base his findings and recommendations on the entire record, as heretofore made and printed, including the several documents and papers mentioned in the stipulations appearing in the record. When the Master's report is received the Clerk shall have the same printed, and the cause shall then be

set down for hearing before the Court on the findings and recommendations of the Master, and such exceptions thereto as may be presented by either state."

It is shown by the report that hearings were had before the Special Master in May, 1925, terminating on May 16th, and the report was filed in the office of the Clerk on April 21, 1926.

The following exceptions have been filed by Complainant:

IN THE SUPREME COURT OF THE UNITED STATES
October Term, 1925.

NUMBER 3, ORIGINAL.

THE STATE OF NEW MEXICO,

vs.

THE STATE OF TEXAS.

Now comes the said complainant by its Special Counsel, and submits to the Court the following exceptions to the Report of the Special Master, filed April 21, 1926, of which he received a copy on May 17, 1926.

First, complainant excepts to said report because its findings and recommendations are not based on the record as heretofore made and printed as required by the Court but also upon numerous additions thereto made by the Special Master, as will appear by reference to pages 8, 9, 10, 11, 16, 17, 18, 34, 53, 60, 61, 65, 66, 68, 69, 70, 71, 73, and 80, and probably in other places, those pages specified being apparent upon a hasty examination of the Report, for the purpose of preparing these exceptions at the earliest possible day.

Second, complainant excepts to said report, because of errors therein as to matters of fact, and specifies as errors, found upon

a cursory examination of the report, that it incorrectly states the Gadsden Treaty at pages 10 and 12; and incorrectly states at page 20 that there is controversy as to the location of Alamitos; and incorrectly states at page 19 that the Piedras Paradas are a group of high jagged rocks; and incorrectly states at pages 42-3, that from January 7 to 18, Clark was occupied in locating an astronomical observatory and ascertaining its latitude, and that the results of observations fixed the latitude of his observatory at 31° 59' 48.23", and the Special Master conjectures that, as this is 11.8 seconds south of the 32nd parallel, a measurement therefrom of 1,192.53 feet due north would reach the Initial point of his survey, when there is not a word in the record to support the statement that the observations resulted in fixing the latitude of an observatory, as they really fixed the latitude of the Initial point at 31° 59' 48.23" north latitude, an error shown by a mere inspection of the record; and incorrectly states, at page 48 that it was admitted by Counsel at the hearing before the master that "occupancy and physical possession by Texas patentees and persons holding under them of the land in question its use, cultivation and enjoyment" "is unquestioned," when counsel for complainant have always insisted that there was no evidence whatever of any such possession of any of the said land; and incorrectly states at page 61 in effect that the Diaz report and survey contained the full survey of the river from the initial point at 32 degreees 22 minutes down to Frontera, when there is nothing in the record to support that statement and the alleged record of the Diaz survey shows a survey from Frontera up to Amoles, and nothing between Amoles and the said initial point; and incorrectly states at page 8, that the undiscoverable Radziminski survey was a survey of the Rio Grande between the parrallels of latitude involved in this case while the record shows that the survey by Radziminski was only from Frontera to 32° 22'.

Third, complainant excepts to said report as conjectural in parts, as at pages 66-7, where it says that a statement that maps

were made from actual survey, makes it extremely probable that the river and topography north of the parallel of 31 degrees 47 minutes must have have been delineated on Map No. 29 (Defendants Exhibit No. 6) from the survey made by Charles Radziminski, and in some of the places in the Report cited in the first of these exceptions.

Fourth, complainant excepts to said report because it states as a fact of apparent importance that counsel for complainant "waited until the very close of the evidence before objecting to" the admissibility of the copy of the alleged record of the Diaz survey, when the record shows nothing of any intention then to close the testimony nor would it have been closed if either side had any more to offer.

Fifth, complainant excepts to said report because it approves the alleged Diaz record as genuine and sufficient to sustain the defense, but does not consider the undisputed evidence which shows that it discredits itself upon its face.

Sixth, complainant excepts to said report because, with regard to the meaning of the entry in Clark's record, quoted at page 40 of the report, no attention is given to the convincing lexicographical and other authorities cited at pages 7-8 of Part Two of the original Brief for Complainant which Brief was submitted to the Special Master.

Seventh, complainant excepts to said report because it erroneously finds, at page 41, that New Mexico upon its admission into the Union, accepted the lines established by the Scott-Cockrell Commission although no such lines, as to the disputed matter of the location of Clark's monument No. 1, were established until long after the adoption of the Constitution of New Mexico, and after the organization of the State government.

Eighth, complainant excepts to said report because it, in effect, recognizes the establishment of Clark's Monument No. 1, by the Scott-Cockrell Commission as absolutely correct, without any

consideration of the undisputed testimony which shows that there was no attempt by that Commission to reestablish Clark's lines except as to Monument No. 1, and that its work was grossly inaccurate.

Wherefore complainant prays that said report be not confirmed but disapproved, set aside and held for naught.

All of which is respectfully submitted,

FRANK W. CLANCY
Special Counsel for Complainant.

As must be apparent from the foregoing exceptions to Mr. Warren's report, there is imposed upon me a most disagreeable and unpleasant task, I believe the most unpleasant that I have ever had in a somewhat protracted professional career, as I am compelled to attack the professional conduct of a man for whom I have a great personal liking, and as well the accuracy of his statements of fact, and to show his disregard for his obvious duty as a Special Master of the Court. I have read his books with great interest, but not with the critical spirit in which I must consider his report in this case, and after reading that report, I feel that I must reread his books, looking at them possibly with a different point of view from that which I had when I first read them.

As to this report, my diagnosis is, that having first made up his mind against complainant, he found himself still somewhat doubtful, and began upon an effort to convince himself that he was right, there being in his subconscious mind an underlying belief that he was wrong, and he spent nearly a year in that effort, and went far afield in his lucubrations and entirely outside of his legitimate duty as a master, seeking to justify himself to himself, and I must submit to the Court, with a degree of success which may possibly be satisfactory to himself, but cannot be to any impartial mind. One is reminded of the mental operations of the erratic,

but talented, Ignatius Donnelly, who wrote several very interesting books, each based upon some preconceived theory, to support which he marshalled every fact of which he could learn, ingeniously distorting it to support his theory, until he thoroughly convinced himself, at least, of the correctness of the view with which he started. I cannot believe, however, that Mr. Warren has really convinced himself, and I hope to show the Court reasons for my disbelief.

Upon what he founded his theory that he ought to decide in favor of Texas, is to my mind largely a matter of conjecture. It may possibly have been founded upon racial prejudice against Indians and Mexicans, more than forty of whom testified in favor of New Mexico; or he may have been influenced by the pre-eminent pulchritude and attractive manners of Dan Moody, which seem to have since been sufficient to achieve a complete conquest of the great empire of Texas, inhabited largely by hardheaded and not easily influenced one-hundred percent Americans; or there may have been in his mind a New England contempt for, and aversion towards, illiteracy, as the greater part of the witnesses above mentioned were quite innocent of any school education, and there is some indication of this last mentioned feeling at page 28 of the report.

One of the most striking things about Mr. Warren's report is his disregard of the limitations imposed by the Court in its order referring the case to him, which curiously enough he has quoted upon the first page of his report with a naivete strange in one of his attainments. That order commits the case to him upon the record as made, and in terms requires him to "base his findings and recommendations on the entire record, as heretofore made and printed." His unwarranted additions to the record will be hereafter taken up and considered, as far as seems necessary, but it must be stated as a preliminary that they are so interwoven with other matters, that it is impossible to discover how far his conclusions and recommendations are based thereon instead of on the "record as heretofore made and printed."

This alone would be sufficient to justify the Court in disregarding the whole report as complainant has asked.

From another point of view, however, such actions would be justified by the inexcusably erroneous statements of fact in the report, to some of which attention will first be called, as they are of such a character as to destroy confidence in the report as a whole. It is with reluctance that I take this position, and wish I could avoid doing so, as Mr. Warren is a gentleman as to whom I have conceived a highly favorable opinion, and for whom I have a strong admiration and regard

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HISTORICAL STATEMENT

Before entering upon a somewhat detailed discussion of the Special Master's report, it may be well, as Mr. Warren has attempted in his report, to make some statement of how the dispute originated, which I hope to be able to do somewhat more briefly than Mr. Warren has made it, and I hope somewhat more definitely and clearly.

While the present litigation does not in any way depend upon the original treaty by which our country obtained the cession from Mexico of a large amount of territory, yet it seems necessary to go back to that treaty for a clear understanding of matters which are presented in the record of the present case, and to show what is involved herein.

By the fifth article of the Treaty of Guadalupe Hidalgo it was provided that the boundary line between the two republics "shall commence in the Gulf of Mexico three leagues from land, opposite the mouth of the Rio Grande, otherwise called Rio Bravo del Norte, or opposite the mouth of its deepest branch, if it should have more than one branch, emptying directly into the sea; from thence up the middle of that river following the deepest channel where it has more than one to the point where it strikes the southern boundary of New Mexico; thence westerly along the whole southern boun-

dary of New Mexico (which runs north of the town called Paso) to its western termination." The foregoing quotation sets out all that is necessary for our consideration.

It was further provided in the same article that in order to designate the boundary line with precision, the two governments should each appoint a commissioner and a surveyor, who should meet at San Diego, and proceed to run and mark the boundary in its whole course to the mouth of the Rio Bravo del Norte. There were, I believe, three different commissioners appointed by our government, one of whom refused to act, and in 1851 the commissioner then acting was John R. Bartlett, and Mr. A. B. Gray was our surveyor; while P. Garcia Conde was the commissioner for Mexico and Jose Salazar y Larregui was the surveyor, and was not the Mexican commissioner, as Mr. Warren states at page 45 of his report. In April, 1851, it was agreed by the two commissioners that the point where the Rio Grande reached the southern boundary of New Mexico was at its intersection with the parallel of 32 degrees, 22 minutes north latitude, which was near the town of Dona Ana, over forty miles north of the town called Paso, referred to in the treaty. Mr. Gray was absent at the time of the making of this agreement and refused to assent to it, taking the position that his concurrence was necessary. The Secretary of the Interior did not agree with him, but Mr. W. L. Marcy, Secretary of State, did agree with Gray, as is fully shown by an excerpt from his letter of July 15, 1853, to Mr. James Gadsden, which will be found at pages 3069 to 3072 of the printed record, and from which we make the following quotation, as clearly showing the status of the boundary question at that time under the Treaty of Guadalupe Hidalgo, and as an assistance in the consideration of one of the inaccuracies of Mr. Warren's report.

> "I will now direct your attention to a very serious difficulty which has arisen in relation to the boundary line between the United States and Mexico. The part of the line, in regard to which the dispute has arisen, is that along the southern boundary of New Mexico. The first

question to be settled is, whether this line has been actually traced by the boundary commission according to the provision of the Treaty of Guadalupe Hidalgo of the 2nd of February, '48. The mode of running and marking the line between the United States and Mexico is clearly prescribed by the 5th Article of that Treaty. That article provides a commission for that purpose. Each government is required to appoint a commissioner and surveyor, who shall meet at the Port of San Diego, and proceed to run and mark the said boundary in its whole course to the mouth of the Rio Bravo del Norte. They shall keep journals and make out plans of their operations; and the result agreed upon by them shall be deemed a part of this treaty.'

The language I have quoted clearly requires that, not only the commissioners appointed by the two governments, but the surveyors also, must concur in the result before the line run and marked will become a part of the Treaty—that is—the fixed boundary between the two countries. They all must agree in the result. The Commissisoner and the Surveyor appointed by each government are its agents, and are to act in this business, in conjunction with the Commissioner and the Surveyor of the other, and their determination all agreeing, is necessary to establish the boundary line, and nothing else can do it.

This was not a board which could decide by a majority of votes. Two could conclude nothing when three only were present, nor could three concurring in opinion, do a valid act in the absence or without the concurrence of the fourth. This was evidently the view of the matter taken not only by the American Commissioner, but by the Mexican Commissioner and Surveyor, at the time this part of the line was under consideration. Hence the great anxiety to have the American Surveyor concur in their opinion in regard to the initial point. The fixing of that point has never been concurred in by the American Surveyor. Mr. Gray who held that position was not present when the initial point was attempted to be fixed, and as soon as he was informed of what was proposed with respect to it, he declared his dissent, and clearly exposed the error. Lieuten-

ant Whipple who, until the arrival of Mr. Gray, acted as Surveyor, under a void appointment from the American Commissioner, also thought it was a mistake to fix that point at 32 degrees 22 minutes, but his concurrence, had it been given in a most formal manner, could be of no avail for he was not a surveyor. Mr. Bartlett, the American Commissioner, had no authority, nor the colour of an authority, to appoint a surveyor, and that was well understood at the time by the Mexican Commissioner and Surveyor. As to the mode of appointing these agents to trace and mark the boundary line the Treaty is clear and explicit. 'The two Governments shall appoint a commissioner and a Surveyor, etc.' The Government of the United States had nothing to do with designating Lieutenant Whipple, Mr. Gray the first appointed surveyor on the part of the United States was the incumbent of that office when Lieutenant Whipple was designated to act as Surveyor,—but if it had been vacant Mr. Bartlett had no power to fill it. Mr. Gray was superseded by Colonel Graham. No sooner did Colonel Graham look into this matter than he discovered the error in regarding 32 degrees 22 minutes as the true initial point on the Rio Bravo del Norte, and not only refused to give his sanction to it, but showed conclusively that it would be a palpable mistake to fix it there. He was subsequently removed and Major Emory put in his place as American Surveyor, but Major Emory never concurred in fixing the initial point at the place selected by the two Commissioners and the Mexican Surveyor. He afterwards merely certified the fact that the Commissioners had fixed the initial point at 32 degrees 22 minutess. An attempt has been made, and may be repeated, to pervert this certificate into a distinctive act of approval, but it was not so regarded by Major Emory nor can it justly be so regarded by anyone.

I have gone into this detail of the proceedings in regard to the initial point to show that it has not yet been fixed, according to the requirements of the Treaty, and notwithstanding all that has been done in that matter, the United States can fairly consider the southern line along the Territory of New Mexico, yet unestablished. I hope

you will find the Government of Mexico disposed to acquiesce in this view of the subject."

Mr. Gray, it seems, carried his objections to Washington, and there was much contention and dispute which caused an attempt to be made, as shown by Mr. Marcy's letter, to get the error of the location corrected by diplomatic negotiations with the Mexican Republic, but instead of making a mere correction, the result is to be found in the Gadsden Treaty, which fixed the location of the point where the boundary was to turn west from the Rio Grande, at the parallel of 31 degrees 47 minutes. The main question involved in the present case is the location of the Rio Grande between the parallels of 32 degrees north latitude and 31 degress 47 minutes north latitude, there never having been an official survey made of that portion of the Rio Grande.

Beginning in 1836 the Republic of Texas set forth the preposterous claim that its southern and western boundary was the whole of the Rio Grande up to its source, which is somewhere in southern Colorado, and in 1850, by an act approved September 30, 1850, Congress made a proposition to the State of Texas, evidently in part, at least, to get rid of that preposterous claim, that Texas should agree that her boundary on the north should commence at the point at which the meridian of 100 degress west from Greenwich is intersected by the parallel of 36 degrees 30 minutes north latitude, and should run from that point, due west to the meridian of 103 degrees west from Greenwich; thence her boundary should run due south to the 32nd degree of north latitude; thence on the said parallel of 32 degreess to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico. Texas accepted this proposition and further relinquished some claims upon the United States, and in return for that acceptance the United States paid to the State of Texas the sum of ten million dollars. It will be seen that thereby, as far as Texas is concerned, her boundary with the United States on her west side was to be the meridian of 103 degrees west from Greenwich, down

to the 32nd degree of north latitude, and thence on that parallel to the Rio Bravo del Norte.

After Mr. Gray was deposed as surveyor Major Emory took his place and was subsequently the commissioner for the United States in fixing the boundary under the Gadsden treaty. He would not concur in the fixing of the New Mexico line at 32 degrees 22 minutes, which is near or opposite the town of Dona Ana, which still exists in New Mexico, although he did sign a map on which he limited his certificate to a statement that that was the point agreed on by the commissioners. Incidentally it may be here noted that Mr. Warren assumes that that point which the commissioners attempted to establish as their "initial point" was the actual boundary fixed by the treaty of Guadalupe Hidalgo, although as a matter of fact it was not the point which was to indicate the boundary, as is clearly shown by Mr. Marcy's letter.

In 1858 John H. Clark was employed as a commissioner to represent the United States, and, in conjunction with a commissioner to be appointed by Texas, to make a survey of the line proposed in the act of Congress of 1850 and accepted by Texas in the same year, but under the instructions given by Mr. Clark, as they appear at pages 264-5 of Senate Document No. 70 at the first session of the 47th Congress, the whole of which has been offered in evidence, and thus becomes a part of the record herein, and which will be hereinafter briefly referred to as Senate Document No. 70, he was directed first to run and mark that portion of the boundary defined by the 32nd degree parallel of north latitude and was told that it would be most accurate, as well as most expeditious for him to transfer the longitude from Frontera, (a point well established by the United States and Mexican boundary commission) in fixing that meridian. There was some controversy with the governor of Texas as to the place of beginning, designated in the instructions, as will appear at page 266 of said Senate Document. But Mr. Clark in his work proceeded in accordance with the instructions given him by the Secretary of the Interior, and it will be noticed that these

instructions were only as to the west boundary of Texas at the 100th and 103rd meridians of longitude, and as to the boundary along the 32nd parallel, but did not, as one would think ought to have been the case, say anything about the survey of the river as the boundary south of the 32nd parallel down to the point fixed by the Gadsden Treaty for the boundary with Mexico. Clark began his survey on the 32nd parallel at a point 600 feet east of the Rio Grande and one of the important questions of fact in dispute in this case is as to the location of that beginning point, which Mr. Warren has decided against the contention of New Mexico, but bases his decision upon indefensible grounds, to some extent fictitious, and without any consideration of much of the testimony presented by New Mexico as to the proper location of that initial point, which was marked by a monument, and which Mr. Warren fixes at a place not less than 2500 feet west of the first elevation of ground east of the Rio Grande and in the middle of an alluvial valley, where it could not possibly be permanent in view of the extraordinary floods to which the river has always been subjected.

As to the method by which Mr. Clark fixed his initial point, the record is not at all clear. It seems certain that he first fixed his initial point and then located a base line of 4750 feet near the initial point and thereafter removed to Frontera and in accordance with his instructions began the triangulation to transfer the meridian of Frontera to the 32nd parallel. It is to be noted, however, that the Senate Document No. 70 shows that there were field notes in not less than 17 books, of which, however, 2 only, No. 9 and No. 17, were sent to the Senate by the Interior Department, as appears on page 3 of the Senate Document, so that it is a reasonable conjecture that if we had book No. 8, we would be shown how Mr. Clark fixed his initial point, as to which Mr. Warren has in the face of Clark's statement at pages 143 and 151 of Senate Document No. 70 that he was establishing the latitude of his initial point, declared that he meant an observatory, by which he seeks to corroborate the ingenious swork of the Texas experts.

My "guess" is that as he must have known of the establishment near Dona Ana by Bartlett and Garcia Conde of the parallel of 32 degrees 22 minutes, by an approximation of the distance indicated by the 22 minutes, he fixed his initial point which turned out to be at latitude 31° 59' 48.2" or a little over 11 ~~minutes~~ seconds from the 32nd parallel. He then proceeded to lay out his base line of 4750 feet, and ~~up~~ on his return from Frontera, he connected his base line with his initial point by measurement, if I understand his notes correctly, and I am sure I do.

Beginning at page 10 of the Special Master's report, after having stated that there was contention in Congress and elsewhere that the Commission headed by Bartlett had made a blunder in agreeing to fix the initial point as far north as Dona Ana, Mr. Warren's report continues as follows:

> "Negotiations were begun for the purchase by the United States of territory south of the Initial Point; and this resulted in the conclusion of a new treaty with Mexico, December 30, 1853—the Gadsden Treaty—ratified June 30, 1854. By this treaty Mexico ceded to the United States territory west of the Rio Grande at 32 degrees 22 minutes, and south to a point on the Rio Grande at 31 degrees 47 minutes; and the boundary between the United States and Mexico running west from the Rio Grande at the latter point was also altered (in a way not involved in this case). The result was that, whereas, prior to June 30, 1854, the west bank of the Rio Grande between these parallels was Mexican soil and the Rio Grande itself an international boundary, after this treaty the soil on the west bank was in the United States and incorporated into the Territory of New Mexico and the river became a domestic stream."

The "Initial Point" referred to by the Special Master was that which was erroneously agreed on by the Commissioners Bartlett and Garcia Conde, as indicated in Mr. Marcy's letter, the erroneousness of which was clearly shown by the Surveyor A. B. Gray, and the negotiations as far as our government was concerned, were

primarily for the correction of that error under the Treaty of Guadalupe Hidalgo, and not "for the purchase by the United States of territory south of the initial point." And it is not true that by the Gadsden Treaty "Mexico ceded to the United States territory west of the Rio Grande at 32 degrees 22 minutes, and south to the point on the Rio Grande at 31 degrees 47 minutes.

The fact is that by the first article of the Gadsden Treaty Mexico agreed that, as her true limits with the United States, the boundary should begin in the Gulf of Mexico three leagues from land, opposite the mouth of the Rio Grande, (the same as in the earlier treaty,) thence up the middle of that river to the parallel of 31 degrees 47 minutes (thus changing, perhaps, the point where the line should turn to the west,) which is not far from where the line should have been under the earlier treaty, as contended by Mr. Gray, and the treaty does not, as the Special Master in effect erroneously states, say anything about the parallel of 32 degrees 22 minutes. The Special Master makes the mistake of assuming that at 32 degrees 22 minutes was the place of the boundary on the river under the Treaty of Guadalupe Hidalgo, but it never was so, although Bartlett and Garcia Conde attempted to make it so. As to this, reference should again be made to the letter of Mr. Marcy.

That to which I wish to call attention is the gross inaccuracy of the Special Master in his attempt to state the purport and effect of the Gadsden Treaty, and I assert that that inaccuracy is characteristic of the report as a whole.

At first glance it may be difficult to understand why the Mexican Commissioner desired to fix the point on the Rio Grande where the line was to turn to the west so far north of its correct location, as to do so would seem to give the United States more land that it was entitled to have under the treaty, but that is explained by Major Emory, as will be seen by reference to pages 2285-6 of the record, where he states that he is of the opinion that the Mexican Commissioner was impressed with the importance of the advantage to his government of making a boundary which would

not only include the railway route, but which would cut off communication between our military posts in New Mexico on the Rio Bravo, and those we might establish on the Gila.

ERRORS IN SPECIAL MASTER'S REPORT.

At page 8 of the report it is stated that it was admitted by counsel for both parties that the Radziminski survey, if found and introduced in evidence, would practically settle the issue in this case, as being the survey officially made by the United States of the Rio Grande between the parallels of latitude involved in this case. This statement is incredible upon its face, and must be due to some misunderstanding on the part of the Special Master, because I am very sure that none of the counsel on either side ever admitted that something which they had never seen, and the contents of which they could not know, would settle the issue in the case. Certainly no lawyer would ever make such an admission in advance of knowing just what it was that was being discussed. I am very sure that I never did, and I cannot believe that my learned adversaries who represented Texas could have been guilty of any such unlawyerlike proceeding.

In connection with this, reference should be made to the fact that at this point in his report Mr. Warren indicates his intention and desire, in violation of the limitation in the order of the court referring the case to him, to add something to the record upon which he was to pass, because, on the same page, 8, he says that, after the hearing before him, he deemed it his duty to the court to make an independent search personally in Washington for such survey, and that he requested the Departments of State, War and Interior that such search should be officially made in their respective files, and that such searches were made but were unsuccessful. Counsel on both sides stated to Mr. Warren that they had caused very careful and extensive searches to be made, not only for this survey, but for the original notes of the work of John H. Clark in 1859-60, and that nothing could be found. It may well have been, however, that Mr. Warren thought that these Yahoos from the plains of Texas

and the mountains of New Mexico were ignorant of the government offices in Washington (I am sure Mr. Warren is conversant with the works of Dean Swift), while he, from long residence there and official connection with the government, had knowledge superior to theirs. We explained to him that first Mr. Post, an engineer and surveyor employed by New Mexico, spent several weeks in Washington, and with the assistance of one of our senators, undoubtedly visited every possible place where the objects of his search could be looked for, and that later Mr. Turney, special counsel for Texas, now a state senator of that great country, spent a long time in conducting such a search in Washington, where he could have the assistance of two senators and a small army of representatives of Texas, and that he found in every office which he visited as he expressed it, the trail of my "man Post." Under these circumstances, counsel on both sides might well consider Mr. Warren's action as meddling and insulting officiousness and interference, but I do not believe any of us would go further than to consider it ~~an indication of hebetude, or a temporary lack of ordinary com-~~ an indication of hebetude, or a temporary lack of ordinary common sense.

On page 11 of the report a quotation is made from the record of the commission acting under the Gadsden Treaty, of what took place at a meeting of the commission September 21, 1857, which is one of the improper additions to the record made by Mr. Warren, and obviously could not be relevant to the issues in the present case. In that quotation it was stated that the "maps signed today and those signed July 3rd, 1857, complete the whole series from the mouth of the Rio Bravo to the Pacific Ocean." After this Mr. Warren states that "the maps thus referred to include as stated in the above vote not merely the maps and results of the survey made under the Gadsden Treaty, but also the maps and results of the surveys made prior to 1853 under the Treaty of Guadalupe Hidalgo, so far as related to the Rio Grande boundary line from its intersection with parallel 31 degrees 47 minutes, and

south to the Gulf of Mexico." If anyone can discover in that vote as quoted by Mr. Warren anything which shows that the maps referred to include what he says, it can only be by doing violence to the plain language which Mr. Warren quotes.

On page 12 of the report we find the following language:

> "Such being the situation as to the surveys of the international boundary, the action of Congress as to the boundaries of Texas and of the territory acquired from Mexico, was as follows: Texas was admitted as a state into the Union by the Act of Congress of September 9, 1850, c. 49 (9 Stats. 446) — the famous Clay Compromise Law of 1850 — which provided that the boundaries of Texas should run (in part) due south to the 32d degree of north latitude; 'thence on such parallel of 32 degrees north latitude to the Rio Bravo del Norte, and thence with the channel of such river to the Gulf of Mexico.'"

It is difficult to imagine how so much inaccuracy could be crowded into so small a space, and one is reminded of the old definition or description of the crab, which was said to be "a small red fish, which walks backward," of which a critic said that it was all right, except that the crab is not always small, is not red, is not a fish, and does not walk backward. In a similar manner it may be said that Mr. Warren's statement is correct except that Texas was not admitted as a state into the Union by the act of Congress of September 9, 1850, but was actually admitted by a joint resolution of Congress, approved March 1, 1845 (5 Stats. at L. 797), and that the act of Congress of September 9, 1850, was not the famous Clay Compromise law of 1850, although so much of it as related to the establishment of territorial government for New Mexico, may be considered as incidental to the compromise of 1850, and that act did not provide that the boundary of Texas should run as Mr. Warren states, but only proposed to Texas what the boundaries should be, and this act is in part set out in the Bill of Complaint in the present case, as will be seen by reference to pages 2 and 3 of the printed record, where the Bill of Complaint

begins, and to pages 5 and 6 which contain Exhibit A with the Bill of Complaint. The very title of the act, which is set out at page 2 of the printed record, shows the inaccuracy of Mr. Warren's statement of it, that title being "An Act proposing to the state of Texas the establishment of her northern and western boundaries, the relinquishment by the State of all territory claimed by her exterior to said boundaries, and all of her claims upon the United States, and to establish a territorial government for New Mexico." The propositions contained in such act of Congress were accepted by the legislature of Texas on November 25, 1850, as appears by the proclamation of the President, which is set out on pages 7 and 8 of the printed record as Exhibit B with the Bill of Complaint.

On the same page 12 Mr. Warren states that there had been in 1854 no official survey by the United States of the southern boundary of the territory of New Mexico east along the 32nd parallel, and that that boundary was also part of the northern boundary of the State of Texas, until Congress by the act of June 5, 1858, c. 92 (11 Stats. 310), ordered such a survey. This is inaccurate as will appear by reference to page 264 of Senate Document No. 70, where it appears that that act of Congress made an appropriation to run and mark the boundary line between the territories of the Union and the State of Texas, beginning at the point where the 100th degree of longitude west from Greenwich crosses Red River and running thence north to the point where said 100th degree of longitude intersects the parallel of 36 degrees 30 minutes north latitude; and thence west with the said parallel of 36 degrees 30 minutes north latitude to the point where it intersects the 103rd degree of longitude west from Greenwich, and thence south with the said 103rd degree of longitude to the 32d parallel of north latitude, and thence west with the 32d degree of north latitude to the Rio Grande. This inaccuracy is not of serious importance, however, but is characteristic of so much in Mr. Warren's report, that it deserves mention.

On pages 12 and 13 of Mr. Warren's report he states that John H. Clark began his survey at the intersection of the 32nd parallel with the Rio Grande, January 26, 1859, (while Clark, Page 296 of Senate Document 70, says that he began work on January 3, 1859) having first run a meridian north from Frontera by triangulation and "direct measurement," but Clark began work before he ran that meridian (page 296 of Senate Document.) By this language Mr. Warren may mean something which is not apparent to the ordinary understanding, as I have not been able to discover any "direct measurement" in Clark's record of the running of the meridian north from Frontera, as it is only a matter of triangulation without any measurement whatever.

Immediately after the statement above mentioned, Mr. Warren says of Clark that "He placed his monument No. 1 on the line and describes it in his official report as follows:" I do not know what Mr. Warren means by saying the monument was placed "on the line." It might mean on the line of the meridian from Frontera, or he may have intended it to mean that it was on the 32d parallel. But the language of Clark's record, shows that this monument was at the "Initial Point," and that the "Initial Point" was not on the parallel, but was at latitude 31 degrees 59 minutes 48.2 seconds, as appears at pages 143 and 151 of Senate Document No. 70.

On page 12 he states that there was incorporated into the Territory of New Mexico "after the Gadsden Treaty the area acquired under that Treaty lying between the parallel of 32 degrees 22 minutes and the parallel of 31 degrees 47 minutes and lying west of the Rio Grande." This is entirely inaccurate, as has been already shown in what I have said with regard to the Gadsden Treaty.

The most startling and inexcusable mis-statement of fact in the report, to which I call attention, is to be found at pages 42-3 of the report, from which I will quote as follows:

> "From January 7 to 18, 1859, Clark was occupied in locating an astronomical observatory and ascertaining

its latitude. This he did by taking observations with a zenith telescope on 38 pairs of stars, and a tabulation of the results fixed the latitude of his observatory as being 31° 59' 48.23". These observations were made as stated by him to determine the latitude of 'first Initial Point (Rio Grande) 32d parallel.' The observatory being found to be on the parallel of 31° 59' 48.23" north latitude, which was 11.8 seconds south of the 32d parallel; (11.8 seconds reduced to feet, is 1192.53 feet, reckoning one second at 101.07 feet); and it would seem to me that by measuring 1192.53 feet due north from his observatory Clark must have reached the Initial Point of his survey on the 32d parallel."

In a footnote on that page he kindly gives a reference to pages 144 - 151 of Senate Document No. 70, which stated more fully, is the Senate Executive Document No. 70 of the 47th Congress, first session, which contains the record, so far as it has been preserved, of the survey made by John H. Clark in 1859 and 1860, and the whole of that document has been introduced in evidence so that reference to it is quite proper. But an examination thereof will show that the astronomical work referred to by Mr. Warren, has no relation whatever to fixing the latitude of any observatory. At page 143 of that document it is shown that the series of observations were for the purpose of fixing the latitude of the Initial Point, and not of any observatory. This is clearly shown on page 143 and on page 151. I can understand from the record what it was that led Mr. Warren into this error, but I am not able to understand how he persisted in it in the face of the distinct language in Clark's record, which shows that the observations were for the purpose of determining the latitude of the Initial Point, and not of any observatory. By reference to the Map No. 1 from Clark's report, which appears in the present record as Defendant's Exhibit No. 61 at page 3373 of the printed record, it will be seen that directly south of the Initial Point is a mark indicating an observatory, and upon this the experts for Texas centered a great deal of time and labor to indicate its position by means of bearings

taken from triangulation stations on the meridian from Frontera to the north, and if there had been any such series of observations as Mr. Warren states, they never could have escaped the attention of these experts. We might imagine Mr. Warren as saying to himself that these experts, who were employed by Texas, were ignorant and incapable, and that he, although not an engineer or astronomer, could undoubtedly find in Clark's record something to corroborate their efforts at fixing this observatory. As to Clark's Map No. 1, upon which Texas places great reliance in connection with the work of its experts, I will before closing show to the Court its inaccuracy in several particulars which could not have escaped the attention of Mr. Warren if he had ever carefully examined it or the testimony about it, and will also show how such errors probably occurred. That, however, has nothing to do with my present criticism showing the absolute mis-statement in Mr. Warren's report on this point.

On page 36 of the report appears the following language:

> "It would appear, therefore, that although there may have been a road on the east side which went up over the hills, and was used by travelers when the river was in flood, the main road went up the valley bottom east of the river, and that the existence of such a road there is incompatible with the location of the river as claimed by New Mexico."

There is no statement made as to why the existence of such a road as Mr. Warren imagines is incompatible with the location of the river as claimed by New Mexico, and there is no evidence in the record which really supports the statement of Mr. Warren that the main road went up the valley bottom east of the river. On the contrary, the testimony of all the witnesses who testified on this point was that the main road ran along on the hills, and that the only road in the river bottom was where it was possible to make cut-offs in dry weather across what the Mexicans call "rincones," which were impassable in wet weather, and the road which Mr. Warren imagines as existing in the valley bottom, was

nothing more than a number of cut-offs, which could be used only in dry weather, and were used merely to avoid hills and rough places in the real road.

On the same page 36 it is stated that Van Patten testified that he knew the river in 1857-8 when he became at the age of 18 conductor on the first stage route from El Paso to Fort Fillmore. This is inaccurate only because it gives the idea that the stage route ran only from El Paso to Fort Fillmore, when as a matter of fact it ran all the way to Tucson, in Arizona and interesting language in Van Patten's testimony is to be found at page 619 of the Record, where he detailed the whole of that route from Franklin, which was the name of what is now the city of El Paso, all the way to Tucson. He also gives a clear description of the road above referred to from Frontera to Alamitos, at pages 620 and 621.

In a footnote on page 42 of the report it is stated that the northern end of the base line is located east of the present Santa Fe Railway track, and it is agreed by the engineers for both parties that such being its location, its northern end will lie practically on the bank or in the bed of the old river, as pointed out by the Indian witnesses, and that the whole base line was near to that bed, and he adds that he is unable to believe that Clark ever laid out his base line in such close relation to the Rio Grande as it flowed in 1859. This is a most extreme statement when taken in connection with what Mr. Warren says just above that the location of the base line has been identified and agreed upon (within a difference of 4 or 5 feet)(by engineers for both parties. The reference in the footnote is to page 2519 of the printed record, but that page does not show anything to support the reference. This will bear further examination as to what is shown by the record, and I will attempt to make that further examination, and either change this present statement or make addition to my brief. Indians and Mexicans are all the same to the prejudiced Warren.

On page 45 of the report Mr. Warren states that the defend-

ant relies largely on a survey of the Rio Grande alleged to have been made in 1852 by engineers named Diaz under the direction of the Mexican commissioner Salazar, although I believe that Salazar was surveyor and astronomer, and upon United States maps and other documentary evidence more or less contemporary with that survey. Without stoping to consider how anything can be more or less contemporary, I will here call attention to the fact that the United States maps referred to were on such a very large or small, scale as to be of but little assistance, and that I cannot recall any documentary evidence contemporary with the survey which in any way tends to fix where the channel of the river was in early days.

On page 48 of the report Mr. Warren states that he understands that it was admitted by counsel at the hearing before him that the occupancy and physical possession by Texas patentees and persons holding under them of the land in question, its use, cultivation and enjoyment, is unquestioned. This clearly indicates a failure of proper understanding by Mr. Warren, as counsel for New Mexico have always insisted that there was no evidence whatever as to such facts, except so far as one may infer it from the fact of surveys and patents.

On page 51 of the report Mr. Warren states that the plaintiff has introduced much evidence tending to prove the locations of a number of Texas surveys as located on defendant's exhibits 62, 65 and 67 are incorrect, and has introduced several maps so constructed as to show that these surveys may from descriptions in the field notes be located so as to throw several of them upon the hills to the east, and entirely away from the river bank. This statement is so incomplete as to be really inaccurate, as I will attempt to show later, as plaintiff's evidence in this matter was mainly to show the grossly inaccurate work of the Texas surveyors and its entire unreliability, indicating that they were in great part what Mr. Owen, expert for defendant, characterized as "chimney corner surveys." This statement in Mr. Warren's re-

port clearly shows that he had not carefully examined, or failed to understand evidence by plaintiff as to these Texas surveys.

At page 61 of the report Mr. Warren says that while it is true that various citations by representatives of the United States in the Chamisal arbitration were made with special reference to that portion of the Diaz Technical Report and Survey relating to the river at El Paso, yet the document contained the full survey of the river from the Initial Point at the parallel of 32 degrees 22 minutes down to Frontera and from Frontera to El Paso and thence south. This is entirely wrong, because the Diaz Report and Survey did not purport to reach the Initial Point at the parallel of 32 degrees 22 minutes, but purports to have gone up from Frontera or from El Paso to the old town of Amoles, which is south of even the parallel of 32 degrees. This is merely an entirely characteristic inaccuracy.

On page 62 of the report in support of his claim as to the accuracy of the Salazar - Diaz Survey, Mr. Warren states that Salazar in a report of his conference with Emory in August, 1852, said that "he is sure that the surveys for the maps which he had already submitted have been done with all the scientific exactness possible." This cannot refer to the Diaz Survey, and it is a mistake for Mr. Warren to urge that it in any tends to establish the accuracy of that survey, because the alleged record of that survey shows at page 3381 of the printed Record, that on August first Mr. Diaz received a letter from the surveyor Salazar in which he requested the plats, including the course of the river from Amoles to Frontera, and ordered their transmittal to him with the greatest promptness, and he finished the triangulation only on the 6th, and that the river was finished on the 9th from Frontera to Amoles, and it further appears on the same page that in September the surveyor urged Diaz to complete the plats, so that it is quite plain that any statement about the character of maps made by Salazar in Augus of that year must have referred to something else than the plats said to be made by Diaz, purport-

ing to cover the region now in dispute. This is only an evidence of the carelessness with which Mr. Warren has examined the case.

On page 83 of the report Mr. Warren says that "It is agreed by both parties, and I so find, that in 1862 and 1864, there was a violent avulsive change in the course of this section of the 1852 river, by which the river was swung over to the westward nearly to the extreme western margin of the valley." In this statement Mr. Warren is mistaken, because Texas has never agreed that there was such change, about which so many of the witnesses for plaintiff testified, by which among other things, the towns of Mesilla and Las Cruces, which had been on opposite sides of the river, were left on the same side, but has steadily insisted that that river has always run close to the western side of the valley, as will appear by reference to the brief heretofore filed by counsel for Texas, and as is essential to defendant's main defense based on the Salazar-Diaz survey.

On page 38 of the report the Special Master says that "There is also evidence in the case as to the existence on the east side of the remains of an old river channel of 1826, which had left long sloughs or esteros at various points." The only evidence as to the old river channel of 1826 is to be found on plaintiff's Exhibit 65, which appears at page 3149 of the printed record, and is a plat of the survey of Anson Mills in 1860 of the grant known as the Canutillo Grant; and there is no evidence whatever that that river channel left any sloughs or esteros anywhere. That statement is only a flight of imagination by Mr. Warren. But said Exhibit 65 plainly shows, close to the foot-hills on the east side of the valley, what is marked as "the old river of 1826," which extends apparently several miles from a point far north of the Canutillo Grant, and down to and through the southern boundary of that grant as shown on the exhibit, and this old river is where complainant claims that the river of 1850 ran at that time.

On the same page the Special Master says that in 1886 when Randolph resurveyed the Canutillo Grant, he placed in his plat

or map a "running slough" down the east margin of the valley almost precisely in the position claimed by the plaintiff for its river of 1850, the plat of Randolph's survey appearing on plaintiff's Exhibit 67, the Special Master says at page 315 of the record, but this is probably a misprint, as the exhibit appears immediately after page 3150 of the record. Mr. Warren instead of indulging a conjecture that the river of 1826 and the "running slough" depicted by Randolph may be really the old river identified by the witnesses who gave Post his information, says that it is *probable* that the river at times ran in these sloughs or esteros as a minor channel or branch, and that it was thus mistaken by some witnesses for the main channel of the river. This mere conjecture of Mr. Warren's like others in several places in his report is favorable to Texas, and appears to be one of his efforts to try to convince himself that he is right in holding against the contention of New Mexico.

At page 61 of the report Mr. Warren says that a report of a survey which was referred to in a brief presented by the government of Mexico for use in connection with the arbitration in regard to the Chamisal case, was entitled "Technical Report of Engineer, D. Augustin Diaz," and is the same document as the Salazar-Diaz Survey introduced in evidence by the State of Texas in the case at bar. In effect that is what Mr. Warren testifies about it, but in the next paragraph he says that it is true that these citations by representatives of the United States were made with special reference to that portion of the Diaz Report and Survey relating to the river at El Paso, to which he adds the further statement that the document contained the full survey of the river from the Initial Point at the parallel of 32 degrees 22 minutes down to Frontera and from Frontera to El Paso. As to this statement of Mr. Warren, which is also in the nature of testimony by him, he is contradicted by the report and survey in the record purporting to be that which was made by Augustin Diaz, because that record does not purport to show any survey from the Initial Point down to Frontera, but on the contrary, distinctly shows that

it claims to have been a survey from El Paso and Frontera up the river as far as the old town of Amoles, which was destroyed by flood about 1864 and does not even reach the parallel of 32 degrees. Reference is here made to this only to show one of the characteristic inaccuracies contained in Mr. Warren's report.

MR. WARREN'S IMPROPER ADDITIONS TO THE RECORD.

While the most of these additions may be criticized as entirely irrelevant, and not to be considered even in the criticism of Mr. Warren's report, yet it must be apparent that he would not have made them unless in his mind they were of importance to the case, and however irrelevant and immaterial they may be, it is impossible to say what effect they may have had in influencing his mind in reaching his conclusions and recommendations.

On page 11 of the report he makes a quotation from the record of a meeting of the Joint Commission under the Gadsden Treaty in Washington on June 25, 1856, and another quotation from the record of the same commission of a vote entered in the original Joint Journal of the commission dated September 21, 1857. Uuder the Gadsden Treaty, as Mr. Warren himself states on page 10 of his report, the commissioners were appointed for the two governments to fix the point of intersection of the Rio Grande with the parallel of 31 degrees 47 minutes, and also to survey and establish the new line from such point west to the Pacific, so that it is clear that in the discharge of their duties they could not properly have had anything to do with matters which are in issue in the present case. It is necessary, however, to call particular attention to Mr. Warren's statement in the last paragraph on page 11 of his report as to the vote presented on the record of the commission on September 21, 1857. The quotation which Mr. Warren makes is to the effect that the commissioners stated that their maps respectively were finished and ready for signature and that the commissioners having previously examined the maps proceeded to sign them, and then follows this

language: "So that the maps signed today and those signed July 3rd, 1857, complete the whole series from the mouth of the Rio Bravo to the Pacific Ocean." Mr. Warren then goes on to state as follows: "The maps thus referred to included, as stated in the above vote, not merely the maps and result of the survey made under the Gadsden Treaty, but also the maps and result of the surveys made prior to 1853, under the Treaty of Guadalupe Hidalgo, so far as related to the Rio Grande boundary line from its intersection with parallel 31 degrees 47 minutes and south to the Gulf of Mexico." I submit to the court that there is nothing in the language of the so-called vote which shows that it included any map prior to 1853 as Mr. Warren says it did.

On page 16 Mr. Warren makes a quotation from a book written and published by John R. Bartlett, who had been a commissioner under the Treaty of Guadalupe Hidalgo, but he seems to have paid no attention to the objection to the introduction in evidence of any part of Bartlett's personal narrative, as it was in no proper sense an official document, but was a private publication made some time after Mr. Bartlett had ceased to be a commissioner, and had nothing of an official character about it. However, the quotation which he makes on page 16 does not seem to be of any material value to anything in the present case, but it may be well to say that the statement contained in it as to a large piece of land plowed up and put under cultivation by Mr. Magoffin, is not sustained by anything in the testimony in the present case, as might have been done if it were true, as Magoffin's descendants, including a grandson, who acted as an interperter in the present case, were living while the testimony was being taken.

On the same page (page 16), however, Mr. Warren makes a quotation from a report of Captain John Pope of the United States Army, and while the statement in that quotation is not entirely accurate, yet in some way it must have influenced the Special Master's mind. It is stated in that quotation that the valley of the

Rio Grande is perfectly level, but the testimony in the present case shows that the valley is not perfectly level.

For some mysterious reason Mr. Warren appeared to find it important at page 25 of the report to make a quotation from the testimony of Longino Maestas to show that Colonel Van Patten did not know about the river in early days, and was not showing the places to anybody, when the record of the testimony distinctly shows that Van Patten came to El Paso in the year 1857, and therefore could not testify or know about the river prior to that time. He did testify as to his knowledge of the river after he came to that part of the country, which is relevant because a number of witnesses testified that from the time of their earliest recollection up to the date of the great avulsive change about 1864, there had been no permanent change in the general course of the river.

At page 17 of the report Mr. Waren makes a lengthy quotation from the report of Thomas Antisell, the geologist of the Parke Expedition, which as far as I can see adds nothing to information about the Rio Grande which is not already shown in the oral testimony of witnesses in the present case, but which perhaps did have some influence on the mind of the Special Master.

Beginning on the same page (page 17) is a quotation from a report of the United States Geological Survey issued in 1907 with regard to the rainfall being insufficient for agriculture without irrigation, and the character of the Rio Grande as a storm-water stream, subject to great and sudden floods. I have no doubt of the correctness of the statement in that quotation, but it was not a part of the record as heretofore made and printed, to which the Master's findings and recommendations were limited by the order of this court.

At page 32 Mr. Warren makes a quotation from the report of the Secretary of the Interior of December 2, 1858, which shows what an engineer named Hutton said about the road leaving El Paso, which does not seem to be of any importance, but evidently

Mr. Warren thought it was, or he would not have included it in his report.

On page 35 of the report Mr. Warren says that Albert H. Campbell, Superintendent, stated something, but he does not even let us know who Campbell was, or of what he was superintendent, and his statement as to the road is not complete, but he does say that "the road proceeds up the valley on the east side of the Rio Grande touching the river at convenient points for water, crosses it near La Mesilla and continues up the valley on the west side to the Picacho." The testimony in the present case shows that the Picacho was on the west side of the river north of Mesilla, and that it was through the construction of an acequia at or near the Picacho that the great avulsive change of 1864 took place, and our testimony shows that the road did go up the east side of the Rio Grande and touched the river at convenient points for water, such as Durasnito, Cantillo, Viejo, where Doroteo Salado lived, Tres Alamos and Alamitos.

There are many other like additions to the record, made by the Special Master which can be found in his report at pages 60, 61, 18, 69, 70, 71, 72, 73, 74, 80 and 83, but it seems unnecessary to encumber this brief with a statement of each in detail.

LOCATION OF CLARK'S MONUMENT NUMBER 1

This is one of the most important facts in issue in this case, as to which the Special Master has made a finding against the contention of complainant, but in order to do so he has been compelled to disregard and ignore important and uncontradicted testimony, as I will now proceed to show.

Before doing so, it may be well to indicate who Clark was and what was his Monument No. 1.

By the act of Congress of September 9, 1850, to which reference has heretofore been made, propositions were made to the State of Texas, as to her boundary, which are set out at pages 2, 5 and 6 of the printed report, and, so far as anything of relevancy

to the present case is concerned, the proposition was that the boundary of Texas in part on the west should be the meridian of one hundred and three degrees west from Greenwich, from its intersection with the parallel of 36 degrees 30 minutes north latitude, running thence due south to the 32nd degree of north latitude, and thence on said parallel of 32 degrees to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico. In order to understand this proposition reference should be made to the fact that in 1836 the Republic of Texas set up a claim for its boundary on the south and west, of said Rio Bravo del Norte from the Gulf of Mexico to the source of the river, a most preposterous and invalid claim in view of the fact that Santa Fe, which is about 30 miles east of the Rio Grande, from some time prior to 1615 had been the seat of government of the kingdom, province or department of New Mexico, under the Spanish and Mexican governments, with officials there residing and exercising jurisdiction over a great extent of country east of the Rio Grande, including numerous towns and settlements on that side of the river, and Congress evidently sought to put an end to this unconscionable claim. The propositions were accepted by the legislature of Texas, as is shown by the proclamation of the President, which appears at page 7 of the printed record. By Article V of the Treaty of Guadalupe Hidalgo made in 1848, the boundary between the United States and Mexico was declared to be from a point in the Gulf of Mexico opposite the mouth of the Rio Grande, or Rio Bravo del Norte, running up the river to the point where it intersected the southern boundary of New Mexico, and made provision for the designation and marking of the boundary by representatives of the two governments, who were each to appoint a commissioner and surveyor. By an inexcusable blunder, the two commissioners, who at that time were John R. Bartlett, representing the United States, and P. Garcia Conde, representing Mexico, in April, 1851, agreed that the point where the river reached the southern boundary of New Mexico was at the parallel of 32 degrees 22 minutes north lati-

tude. The surveyor on the part of the United States was not present when that agreement was made, and later refused to assent to it, taking the position that he was a part of the representation of the United States and that his concurrence was necessary. I have heretofore sufficiently considered the matter of this mistake, which our government undertook to have corrected by negotiation with Mexico, but the correction was not made, and the result was the making of the Gadsden Treaty in 1854, by which the boundary of Mexico was fixed beginning at the same place in the Gulf of Mexico as in the Treaty of Guadalupe Hidalgo, and running thence by the river to the parallel of 31 degrees 47 minutes north latitude. In 1858 Congress made an appropriation of $80,000 "to run and mark the boundary line between the Territories of the United States and the State of Texas, viz: beginning at the point where the one hundredth degree of longitude west from Greenwich crosses Red River, and running thence north to the point where said one hundredth degree of longitude intersects the parallel of 36 degrees 30 minutes north latitude; and thence west with the said parallel of 36 degrees and 30 minutes north latitude to the point where it intersects the one hundred and third degree of longitude west from Greenwich; and thence south with the said one hundred and third degee of longitude to the 32nd parallel of north latitude, and thence west with the said 32nd degree of north latitude to the Rio Grande."

It is to be noted that the all-wise Congress failed to include that part of the boundary between the 32nd degree of north latitude and the parallel of 31 degree 47 minutes, established by the Gadsden Treaty as the point in the river where the international boundary turned to the west. Mr. John H. Clark, as commissioner, astronomer and surveyor was employed to represent the United States in the running and marking of the boundary described in the Act of Congress, as will appear from the instructions given him by the Secretary of the Interior, which appear at pages 264 and 265 of Senate Document No. 70. By these instructions Mr. Clark was directed to begin with that portion of the boundary de-

fined by the 32nd parallel of north latitude, and to transfer the longtitude from Frontera, a point established by the United States and Mexican Boundary Commission, and he appears to have begun work on January 3, 1859, as shown at page 286 of Senate Document No. 70, which is made up of what was transmitted to the Senate by the Department of the Interior in response to a resolution requesting the Secretary to furnish the Senate with a report, if any, of the survey of the United States and Texas Boundary Commission, and there were transmitted papers, books and maps, of which the schedule appears at page 3 of Senate Document No. 70, and it appears that Clark's Book No. 9 and another No. 17, were included in that schedule, and it is to be inferred that there must have been at least 15 other books which were not transmitted, and by Mr. Clark's report, which begins on page 296 of Senate Document No. 70, it appears that he reached the Initial Point January 2, 1859, and that the next day the work was commenced. From this it would seem clear that between January 3 and January 9 or perhaps before January 2, he had fixed his Initial Point, as the first entry, dated January 9 was as to the location of his base line, which at page 296 he says was selected near the Initial Point, so that it seems certain that if we had the preceding book No. 8, we would ascertain how he selected or fixed the Initial Point, which, from the record of astronomical work beginning on page 143 of the Senate Document for the determination of the latitude of the Initial Point, and ending on page 151, was at latitude 31 degrees 59 minutes 48.23 seconds, which, however, is stated at the beginning of that record of observations to be 31 degrees 59 minuts 48.2 seconds. On page 143 under the heading "Determinations 32d Parallel," the latitude of 7 points is set out, all of which but one are a little under 32 degrees latitude, that one being No. 4 at the Pecos River, where the latitude is given as 32 degrees 01 minutes 04.9 seconds.

I may properly at this point again repeat that Mr. Warren says that these observations extending from January 7 to 18, 1859, were for the purpose of determining the latitude of an imag-

inary observatory, and therefore not for the determination of the latitude of the Initial Point, as Mr. Clark's record states. But this leaves Clark's Initial Point without any connection whatever with the rest of his work, an absurdity which does not appear to have occurred to the mind of Mr. Warren.

By some error, which has not been explained so far as I am aware, Mr. Clark in his running of the one hundred and third degree of longitude put it a considerable distance west of its true location, I think something like three miles, and this becoming quite notorious, Texas procured from Congress in 1891 an affirmance of the Clark lines as indicating her boundary, and again in 1911 procured the passage of a Joint Resolution of Congress, which is set out at pages 10 and 12 of the printed record, by which it was provided in substance that the part of Clark's line run and marked by monuments along the 32d parallel of north latitude, and that part of the line marked by monuments along the one hundred and third degree of longitude, should remain the true boundary lines of Texas and New Mexico, and further authorized the President in conjunction with the State of Texas to re-establish and remark the said boundary lines, and to appoint a commissioner, who in conjunction with such commissioner as might be appointed by the State of Texas for the same purpose, should remark the boundary between the Territory of New Mexico and the State of Texas, and it specially provided that it should be "the duty of the commissioners appointed under this act to remark said old Clark monuments and lines where they can be found and identified by the original monuments now on the ground." Under that resolution it appears that the President appointed Francis M. Cockrell to be the commissioner on the part of the United States, and that the State of Texas appointd Sam. R. Scott, as the commissioner for the State, and the record of their work does not show any effort to remark the old Clark monuments at any part of their work, except the Clark Monument No. 1, which Clark says was at his Initial Point, which in their report after finishing their field work on September 26, 1911, they stated they were unable to locate and identify on the ground or

from any other source. But it further appears by their supplementary report, which appears at page 23 of the printed record in this case, that later they returned to the intersection of the 32d parallel with the Rio Grande, and made a second effort to locate said monument No. 1, and being unable to do so, then took a topographical map made by Commissioner Clark, which accompanied his report of the location of the 32d parallel in 1859, and from that map determined the approximate scale upon which said map was made, and taking Monument No. 4 on said 32d parallel upon the peak of the Franklin Mountains as a base from which to operate, and measuring the distance on the ground westward along and on said 32d parallel from said Monument No. 4, the scale being 201.4234 chains per inch, which is shown by testimony to be over 13,000 feet per inch. At this point it is well to state that uncontradicted testimony, of which Mr. Warren takes no notice, shows beyond doubt that the monument which the Scott-Cockrell Commission took to be Monument No. 4 was really Monument No. 3. I will also at this point quote Mr. Clark's description of his monuments on the 32d parallel from 1 to 5, which appears at pages 301 and 302 of Senate Document No. 70:

"MONUMENTS ON 32D PARALLEL"

"1. Initial Point. A pyramid of stone, 8 feet high, whitewashed, with inscriptions on all of the sides. It stands 600 feet from the bank of the river and between them lies the road from El Paso to Fort Fillmore.

2. On the first ridge of sand, built of stone around a stick of timber.

3. On the first plateau, of a stick of timber; a cottonwood tree barked.

4. On the first spur of the Franklin Mountain cut by the line, is of stone, and whitewashed six feet high All four of these monuments can be seen from the road along the valley.

5. Directly east of the Franklin Mountain, and on the road leading from El Paso to the Salt Lakes. It is a

large mound of earth, capped with a slab of stone bearing the inscriptions."

A quotation from Mr. Clark's note at page 306 of Senate Document No. 70 will be here appropriate, and should be borne in mind in connection with the methods adopted by the experts from New Mexico, which were followed by the experts of Texas, in identifying Clark's stations on his survey, which were in marked contrast to the work of the Scott-Cockrell Commission, which employed no methods whatever such as Clark indicates for the identification of any station or monument. Clark speaks on this subject as follows:

> "I repeat that under no circumstances could these landmarks be made more substantial or lasting. That some of them will not remain on the 'earth's surface to the distant future' is quite probable; not from the fault of construction or material, however, but from the accident of their position and surroundings. To guard against this very contingency, their accidental or wilful destruction, I had the boundary line constantly referred by triangulation to permanent physical objects, which can be easily identified and will never in all human probability be 'obliterated by natural or other causes.'
>
> "What I endeavored to convey to you in my report bearing on the permanency of the monuments was that even in the event of their destruction, the line could be reestablished by a common surveyor without a repetition of the scientific and extensive operations employed in determining the parallels and meridians constituting the boundary." Rpt 306 - Sen Doc

Mr. Post, an expert employed by New Mexico, went upon the ground in company with a number of old men who showed him where the river ran in their early childhood, and he marked the course of the river by stakes, and subsequently other parties of old men went over the line of the river with him and with Steen, another expert, and agreed to the correctness of the line which ~~Clark~~ Post had surveyed and placed upon the map. Up to this time Post had no knowledge of any record of the Clark Survey, and when

he did see it, he returned to the ground at the 32d parallel, which is marked in the town of Anthony by a signboard, put up by a United States astronomer and surveyor, to begin the work of identifying Clark's stations in the manner indicated by Clark, taking bearings upon the permanent physical objects referred to by Clark's triangulations, and I believe first identified Station No. 1 by the bearings given on page 17 of Senate Document No. 70, and then discovered in the ground about the spot which he had so identified, a number of stones of a different character from any to be found within a radius of 900 to 1000 feet, and then surmising that these stones were the remnants of Clark's Monument No. 1, he found that this spot was approximately 600 feet from the old river, which had been pointed out to him by the old men.

Mr. Warren at page 44 of his report speaks about the location of Clark's Monument No. 1 and plaintiff's contention as to the mistake of the Scott-Cockrell commission as follows:

> "I consider that the plaintiff's theory as to the coincidence of the location of Monument No. 1, with Station No. 1, is without basis. I consider further that plaintiff's theory that the Scott-Cockrell Commission measured by mistake from Clark's Monument No. 3, instead of from Clark's Monument No. 4 is also without basis."

Mr. Warren does not here attempt to make any statement of the testimony with regard to these matters, and I am forced to believe, especially in view of the particularity with which he has stated testimony as to other matters in different parts of his report, that he found it impossible to make such a statement without showing the incorrectness of his conclusions, which are necessary to support his general holding in favor of Texas. I will attempt to make a statement as briefly as possible of what the record shows as to these two matters, and believe that it is convincing beyond a reasonable doubt that Mr. Warren is wrong when he says that the plaintiff's contentions are without basis, and I will first take up the second matter as to the mistake of the Scott-Cockrell Commission. Bearing in mind that the resolution under which the

Scott-Cockrell Commission was created authorized nothing more than the reestablishment of the Clark lines and required the commissioners to remark the old Clark monuments where they can be found, and bearing also in mind Clark's statement that he had the boundary line constantly referred by triangulation to permanent physical objects, it is most extraordinary that that commission never made the slightest attempt to identify any part of the line, which they were to reestablish by reference to the bearings on permanent physical objects, (which Clarke indicated would be the natural way of reestablishing the line,) as will appear by reference to extracts from the official record of the commission which appear at pages 2674 to 2679 of the printed record, and in this connection reference should be had to the supplemental report of the commission which appears at page 23 of the printed record, which shows the method employed by the commission to fix Clark's Monument No. 1.

In marked contrast to the procedure of the Scott-Cockrell Commission in making no attempt to reestablish anything on the Clark lines by the method which he had indicated, the experts employed by the complainant reestablished on the earth's surface Clark's Stations 1, 2, 3, 4, and 8, so clearly that the experts employed by Texas agreed that that reestablishment was correct. All three of complainant's experts not only reestablished Clark's stations, but also the location of his monuments, as will appear by reference to the testimony of Post at page 1781 of the record; the testimony of Steen at page 2033 of the record; and the testimony of Turley at page 2119 of the record. It may be well at this point to make some quotations from that testimony.

After testifying about the identification of Station 2, and the indications of a monument at that place by stones on the western slope of the sandhill, which evidently was the sand ridge mentioned by Clark, Mr. Steen's testimony beginning on page 2033, proceeds as follows:

"Q. 154. What, if anything else, did you do with

regard to the relocation of any other stations along Clark's line?

A. I went up on the top of a hill.

Q. 155. Of this same hill?

A. No, sir. Of a hill rising out of a plateau, which was entirely disconnected from the Franklin mountains. There was a valley on the east and a valley on the west. At the top of that hill, we found a monument, located by the Scott-Cockrell commission. We set the transit up there, —or I did,—and turned the various angles given in Clark's report,—given by Mr. Clark in his report, on page nineteen, under the heading 'station three. monument.' They corresponded with Mr. Clark's angles, perfectly,—the bearings which I took.

From that point we went to the first spur of the Franklin mountains, and, after a hard climb, got up there and located station four. I checked station four in the same manner that I had checked the other stations, by bearings on the varions mountain peaks as given by Mr. Clark on pages nineteen and twenty of his report, under the heading of 'station four,' and they corresponded to his bearings, perfectly. This monument or station is located on the first spur of the Franklin mountains.

Q. 156, Was there any monument or marking at that place?

A. There was.

Q. 157. Re-established by the Cockrell commission?

A. No. sir.

Q. 158. What, if anything, was there in the way of a monument or the remains of a monument?

A. There were a good many stones piled around there by a flag. I do not know, only by hearsay, whether they were there for any length of time or not.

Q. 159. What kind or sort of looking stones were they?

A. They were of the same formation that the mountain is made of. I do not remember what they were, but it is my recollection that they were rather flat, as though they had been broken off from some various veins. The veins are all turned up edgewise in that section.

Q. 160. That is, the strata?

A. Yes, sir; I should have said the strata. And they appeared to me to be the same material."

It will be seen from Mr. Steen's testimony that the monument established by the Scott-Cockrell commission as Monument No. 4 was most certainly at the place designated in Clark's field notes as "Station three, monument," and that it was at the sort of place described by Clark as on the "first plateau."

Captain Turley, beginning on page 2119 of the record, testifies as follows:

Station two falls a little bit west of the crest of a sand hill,—the only sand ridge that lies between Anthony and the Organ Mountains, and consequently is the first ridge of sand. At that point were some stones gathered together, evidently marking some point, and were brought there by some persons, for there are no more stones or other stones to be found anywhere on this sand ridge. The prevailing winds coming from the west, the sand has no doubt been moved slightly to the eastward, which accounts for this not being on the absolute top of this ridge at this time.

Q. 35. Does Mr. Clark say that it is on the top of the ridge of sand?

A. He does not; but it is almost on top of the ridge as you could see it, looking from the point on station one.

He says his third monument on the thirty-second parallel was 'on the first plateau, of a stick of timber.' Commencing east of the sand ridge, and extending to the Organ mountains, proper, is a long stretch of level and rolling country, out of which rises a ridge, or horse-shoe-shaped hill; and this station three falls on this ridge; and

this is the point where the Cockrell commission have located and reestablished monument number four.

Q. 36. Did you verify that location for station three by bearings on mountain peaks?

A. I did; but all but the one that I noted a little while ago, that was twenty degrees off, I checked very well; that is, with the exceptions that I made when I was reading the typographical errors.

On the eastward of this point is the first spur of the Franklin mountains cut by the line. The spur evidently is a smaller ridge protruding or running from a high point,—

Q. 37. It might be a big ridge?

A. It might be large, or it might be small, but it must be a part of the more prominent mountain, and this ridge on which station three is located merely rises out of a plateau, and is disjoined and separated by a long distance from any solid mass of the Franklin mountains.

And at station four are the remains of a monument of rock,—quite a large monument. It is built up of the country rock lying thereabouts, but it marks a point there where this line cuts the first spur of the Franklin mountains.

All four of these stations can be seen from the road along the valley,—along, not in the valley. Mr. Clark uses the term 'Along the valley,' and not 'In the valley.' And there are not other points where you can harmonize his statements here of these mountains, and place them so they can be seen from the edge, or any point out in the valley.

Monument number five is out on the flats east of the Franklin mountains, about seventy or eighty feet east of the remnants or the remains of the old road from El Paso to the salt lakes; and there is a large blue limestone rock, marked with letters, very nicely and deeply chiseled in this rock. The letters are between three and four inches high, so that they are very easily read. This rock is setting

on top of the remains of the mound of earth."

Captain Turley further describes the slab of rock which marks Monument No. 5 and the letters thereon and says that it would take a good strong man to lift it, and that he raised it up to see what was on the underside, but did not take it off the ground. As an indication of what he meant by a strong man, it is not improper to say that Turley is about six and one-half feet in height. He further testifies on page 2122 that the Cockrell commission line did not coincide with Monument No. 5, but is located 157.4 feet north of that monument, and that the bearings from Station 8, that is, the bearings given by Clark from Station 8, check on the mountain peak at the Monument No. 5, showing, as he states, that Clark placed his monuments at stations. It is to be noticed that the Monuments Nos. 1, 2, 3 and 4, as described by plaintiff's experts, correspond to the descriptions given by Clark at pages 301 and 302 of Senate Document No. 70, and there is absolutely no contradiction of this testimony, although Mr. Campbell, defendant's leading expert, at page 2511 of the record says:

> "You will observe that this monument two falls at the extreme end of a gravelly ridge, which is extensively covered by ridges of sand; and, looked at from any point in the valley in the vicinity of the thirty-second parallel, this ridge has the appearance of, and in fact is a sand ridge, to the extent that it is a gravelly ridge largely covered by ridges or banks of sand. The south end of this ridge terminates just where the thirty-seceond parallel crosses its base, and the surface of the base of the sand ridge, so terminating, is composed of sand; and no one not utterly devoid of imagination would have any difficulty in looking at this ridge from the valley, and calling it a sand ridge, and in saying that a monument erected on this sandy base is erected on a sand ridge."

And yet Campbell testified at page 2454 of the record that he agreed with the engineers for the plaintiff as to the location of a monument at station two and at station three.

As to this flight of imagination on the part of Mr. Campbell,

I call attention to the fact that Monument No. 2 is on the middle of the first sand ridge, the shape of which is shown in the field sketch at page 19 of Senate Document No. 70, which appears in the printed record as plaintiff's exhibit 79, opposite page 3180, and is shown by photographs, which are complainant's exhibits 80, 82 and 83, and of Campbell's further statement at page 2582, that his location is at a low ridge rising a few feet, and of Turley's statement that there is but one sand ridge between Anthony and the Organ mountains, at page 2119, and that it is the only sand ridge in that section of the country, at page 2123, there can be no doubt that Campbell was wrong, and especially when we recur to the definite evidence of Post, Steen, and Turley that they found stones a little below the crest of what Turley says is the only sand ridge, and verified that spot by Clark's bearings on mountain peaks as his Station No. 2. I call attention also to photographs of Campbell's location which are complainant's exhibits 88, 89, 90, 91 92, following page 3180 of the printed record.

I invite the attention of the court to the testimony of Thomas R. Owen, which begins at page 1524 of the record, and of A. M. Randolph which begins at page 1667, as tending to corroborate our claim that there is some basis for New Mexico's contention as to the coincidence of the location of Monument No. 1 with station No. 1, which Mr. Warren at page 44 of his report declares to be without basis. I will attempt to make a condensed statement of Owen's testimony, as to which, if not entirely clear to the court, I beg that the court may read so much of his testimony as will be found at pages 1524 to 1528 of the record. He testifies that he lived at El Paso from the middle of June, 1881, up to something past 1885, and that his occupation was that of a surveyor at that time, and that he was a deputy surveyor of El Paso County beginning about six months after he came there, and was employed to lay off an addition to El Paso, and thought that a part of that survey might be inside of a reservation created for a railroad company, the north line of which was the line between Texas and New Mexico, and in order to find out whether the land was

or was not within that reservation, he went up the river and got on the line between Texas and New Mexico, and ran the line east until he got over the mountain to the level land, and then ran a line down to the addition upon which he was engaged. He says that he got on the line of New Mexico about where Anthony is now, at which time he believes there was a house or two there, and that this was in the year 1882 or 1883. It appears elsewhere in the testimony that the railroad was constructed through where Anthony is now about 1881 or 1882. He says that he found a monument on the east side of the railroad and about 15 or 20 steps from the railroad, and that he revisited the place August 19, 1913, when he was able to identify the place as the same one where he found the monument in 1882 or 1883. He then ran the line across the Franklin mountains and on the way found at least three monuments, which must have been Clark's monuments 2, 4 and 5, the last being on the east side of the mountains not far from a road. And that when he revisited that place he saw signs of an old river bed where he thinks that he stopped under some cotton-wood trees in 1882 or 1883, and that from the edge of that old river bed to the place where the monument had been, he would take it to be a couple of hundred yards, or 200 or 300 yards. His description of the places where he found monuments, although not very exact, correspond fairly well with the places where the monuments were as described by Clark at page 301 of Senate Document No. 70 and his somewhat indefinite estimate of the distance of the old river bed from the monument east of the railroad track corresponds with Clark's statement that his first monument was 600 feet from the river.

The testimony of Mr. Randolph begins at page 1667 of the record. He states that his occupation is that of a surveyor, and he had been a surveyor since 1873; that he came to El Paso in the fall of 1881 and was a deputy surveyor in 1881, and was county surveyor in 1882, and that in 1881 he made a survey of 640 acres of land for W. D. Marsh, the field notes of which sur-

vey appear at pages 1669-70 of the record. They show that the survey began on the south boundary line of New Mexico at the northeast corner of Survey No. 161 in the name of Maverick, the field notes of which survey appear at page 1671 of the record, which, however, was a survey made by Anson Mills, as to whose deficiency as a surveyor we have the statement of John H. Clark, at page 271 of Senate Document No. 70, but this is the only record we have of survey No. 161, which, according to the field notes, began at a stake on the 32d parallel at its intersection with the east bank of the Rio Grande, from which the first monument of the boundary line bore east 154 varas and ran east 634 varas to a stake and mound which would be the northeast corner of the survey, at which point Randolph began his survey for Marsh, which would be, according to Mills, 479 varas east of Monument No. 1, and ran thence south 672 varas to Maverick's southeast corner, and thence west with the Maverick south line 116 varas to the northeast corner of a survey in the name of J. G. Theilpape; thence south with the Theilpape east line 672 varas to the north boundary of a survey in the name of M. Rodriques (which should be Maria Rodriguez); thence east with the Rodriguez north line 2746 varas to a stake for the southeast corner of this survey; thence north 2344 varas to a stake on the south boundary line of New Mexico for the northeast corner of this survey, and thence west 2630 varas to the place of beginning, which would seem to make this last survey extend more than 3,000 varas further east than the Monument No. 1, which would be about 7800 feet, and no matter which location for monument No. 1 we adopt, would extend far beyond the limits of the valley and into the sandy, gravelly barren hills, which would appear to dispose of Mr. Warren's criticism at page 49 of his report that on the plaintiff's contention "it would appear that a large part of all of the above surveys would be located in the sand hills above the river valley," because this Marsh survey according to the Texas survey No. 161 would necessarily extend far into these sand hills. It is of course difficult to understand why anybody would want land in these barren sand hills, but there can be no

doubt that this Marsh survey was south of the 32d parallel and east of any Rio Grande which appears from the testimony, and the same thing may be said of survey No. 161, which, according to Mills, began 154 varas west of monument No. 1, and extended 633 varas running east from the east bank of his river and 479 varas east of the monument, which was originally 600 feet east of the river according to Clark's statement. This seems to demonstrate quite clearly that Texas surveys did run out into the sand hills, and there is no reason to be surprised if the other surveys from 162 to 173, all made by Mills, also ran out into these sand hills.

A vara may be safely computed at 33 inches.

At this point it will be well for us to refer to the supplemental report of the Scott-Cockrell commission which appears at pages 22-3 of the printed record, which must be considered in connection with some of the testimony hereinbefore quoted. That supplemental report is dated Feb. 20, 1913, more than a year after the organization of the state government of New Mexico, and so much of it as bears upon the question we are now discussing, is as follows:

> "In our report of the work performed by the Boundary Commission on the 32d parallel north latitude near its intersection with the Rio Grande river, we stated that we were unable to locate and identify upon the ground, or from any other source, the true location of the original 'Clark Monument No. 1, 32nd Parallel.'
>
> "After finishing our field work on September 26th, 1911, we returned to the intersection of the 32nd parallel with the Rio Grande river and made a second effort to locate said Monument No. 1, and being unable to do so from any physical facts found upon the ground, or from any oral testimony procurable, we then took the topographical map made by Commissioner Clark and which accompanied his report and from that map we determined the approximate scale upon which said map was made and taking Monument No. 4 on said 32nd parallel upon the peak of the Franklin Mountains as a base from which to operate and measuring the distance on the ground westward along

and on said 32nd parallel from said Monument No. 4, the distance indicated between said two points on the Clark map, said scale being 201.4234 chains per inch. At this point (which is between mile posts 208 and 209) we re-established Clark's Monument No. 1, 32nd parallel, this point being three miles plus 73.884 chains from Monument No. 4."

Although in this report reference is made to the "topographical map made by Commissioner Clark," which means his map No. 1, which is reproduced in the record as defendant's exhibit 61, yet in the copy from the record of the Scott-Cockrell commission near the foot of page 3168 of the record, the surveyor who did the work calls it a "topographical sketch of Clark's," which is a better definition of it than to call it a map, and I expect to show that taken as a whole that sketch is so inaccurate as to deprive it of any weight in fixing the location of the river, or the topography of the country between stations 1 and 4 on the Clark line.

It must not be forgotten that there is no scale given on that map, and the approximate scale determined by the commission as stated in its supplementary report is one of 201.4234 chains per inch, which would be 13,294 feet to the inch. To determine that approximate scale the only method available is the one indicated by the witness Post at page 1931 of the record and described by him at pages 1947-8 of taking the longitude lines on the map and from them determining the scale, and this must have been the method adopted by the Scott-Cockrell surveyors, as the results obtained by Post are not materially different from theirs (p. 1933 of the record). He obtained one figure of 13.079 feet to the inch, and another a little above that, but he adopted for use a scale of 13,100 feet, or only about 194 feet to the inch less than that of the Scott-Cockrell surveyors, which would not, as he testifies, as must be obvious, make any great difference. He testifies also at page 1942 that scaling back to the west from Monument No. 2 on the first sand ridge, monument No. 1 corresponds to station No. 1, where complainant contends that Monument No. 1 was located, and it is

shown in the testimony at page 2032 of the record that Steen as well as Post actually measured on the ground the distance from Monument No. 2 on the sand ridge to station 1.

It seems well at this point to point out the character of the map No. 1 as contained in the printed record of Clark's survey in Senate Document No. 70, and I invite attention to its defects and inadequacies in part apparent on its face, and in part demonstrated by facts in contradiction on the ground shown in the printed record. At pages 305 of Senate Document No. 70, Clark states that "the line ran through a country full of striking features which can be easily identified; and being referred to in the note books and laid down on the maps they can be taken as starting points," but the topography of that region, particularly along the 32nd parallel east from the Rio Grande through the Franklin mountains is not correctly shown on said topographical sketch, which is map No. 1. By careful examination, it is apparent that the horseshoe shaped ridge or plateau, as testified about by Campbell at pages 2512 and 2616 shown on defendant's exhibit 63 opposite page 3373, also by Campbell at pages 2559-2561, and by Owen at pages 2690-1, by Post at pages 1941-2 and 1944, by Steen at pages 2032-3-2103-4-5, and by Turley at pages 2120, 2121, and as shown on complainant's exhibits 79 and 83 to 87, and on defendant's exhibits 63 and 65, is the "first plateau," and is the same as is mentioned by Clark on page 302 of Senate Document No. 70, quoted at page 3132 of the record, on which is placed monument No. 3, and it is not properly or correctly shown on said topographical sketch. Further, said topographical sketch, or Clark's map No. 1, does not show the first sand ridge on the parallel running east from the Rio Grande, as it is shown on his field sketch which appears as complainant's exhibit 79, and at page 19 of Clark's printed report, and as 5140 after page 3066 of the record in defendant's exhibit 94. Also just westerly of this sand ridge on which was located Clark's monument No. 2 is an arroyo, or a large water course, which drains the westerly side of the Franklin mountains, as well as the north side of the plateau mentioned by Clark, and while the sketch shows

numerous arroyos and ravines, it does not show this one of the principal lines of drainage of that region, as shown in the testimony of the witness Turley at pages 2162 to 2191 of the record.

At page 2512 of the printed record Campbell speaks of "an invisible valley" lying east of the plateau mentioned by Clark, and as shown on defendant's exhibit 65, and as testified to by witness Owen at page 2691 of the record, and also by witness Altman at page 3004 of the record. This depression, or invisible valley, which separates the plateau so-called by Clark, from the first spur of the Franklin mountains, is not clearly shown on Clark's topographical sketch or so-called map No. 1.

As stated by Post at pages 1939-1940 to 1945 and 1946, Steen at page 2097 and Turley at pages 2120-21, Clark's monument No. 3 is not properly located on the map No. 1 with respect to the intersection of the Frontera meridian with the 32d parallel, as shown on said map No.1. On said map No. 1, and southerly from the point marked Initial Point is placed a small square with a point marked in the lower right-hand corner thereof, as referred to by the witness Steen at pages 2095-6, 2102, and Turley at pages 2125-6, 2167 and 2184. As to just what Clark, or his draftsmen, had in mind while placing the same on the map, is a mystery so far as the labors and exhibits in this case on both sides have developed, although it does appear that by scaling on map No. 1 this square appears to be at about the proper location for Clark's point or station recorded as "B. (Evans)," and that by turning angles to the left (pp.1904-5) this may be the observatory, and should have been so designated on the map, if any point thereon was to be so marked and designated. Defendant's expert Campbell at page 2601 of the record says there is nothing in Clark's report that has any connection with that figure on the map No. 1.

The record shows that Clark was not instructed to make any survey of the course and position of the channel of the Rio Grande at any place below his Initial Point on the 32d parallel, and there

is no evidence that he did make such survey, or anything approaching such survey, except as indicated in his field sketch shown in complainant's exhibit 26 after page 3120 of the printed record, marked 5225 (which should be 5235), and as shown in defendant's exhibit 84, next after page 3056 of the record, both of which are copies of page 5 of Clark's printed report, on which appears the course of the river marked "Rio Grande River," from a point below Frontera to another about two miles above Frontera, and opposite his one mile station on the meridian, and a little above his triangulation station marked "b," which shows the Rio Grande as flowing in more of a southerly course along the base of the hills bordering the east margin of the valley, as stated by the Texas expert Campbell at page 2011 of the record. Attention is particularly called to the fact that the course of the Rio Grande as shown by that sketch made by Clark while in the field, places the river and its course and position in the exact locality pointed out by old witnesses and as placed on the pleading map of the Engineer Post, before he had any knowledge of the printed report of Clark's survey in Senate Executive Document No. 70, which is another corroboration of the testimony of the old witnesses on behalf of the complainant. It seems certain that the Rio Grande and its position, course and location as shown on the "topographical sketch," or Clark's map No. 1, were merely sketched in by draftsmen to show more or less the conditions in that region, and not in any manner to indicate the exact location of the Rio Grande at that time, but merely enough to give an idea of what might be found in passing through that section (Turley at page 2142). This fact is even more evident when a comparison is made of what is indicated at and near Frontera on the said field sketch and on said map No. 1, as it will be seen that from a point between the Frontera observatory and the point marked by a cross for "Initial Pt. Mex. Bdy." the course of the river is shown to be far to the eastward, which would throw it out on the foot of the mountain, as will appear from any of the maps of that part of the river in the record, and also the course of the Rio Grande as sketched upon such map No. 1 is shown to be easterly

from a point about two miles west of Frontera, giving the river a course almost directly from west to east, and passing about 1-2 mile to the south of the point marked for Frontera observatory.

It must be apparent that Clark himself could never have examined or checked the said topographical sketch or map No. 1, or he would have had it changed, and he never could have intended that such a map should be taken as a definite part of the record of his survey. This applies especially to the general course of the river as shown on that sketch.

There is placed on said "topographical sketch," otherwise called Clark's Map No. 1, south of the Frontera observatory, a cross which is marked "Initial Pt. Mex. Bdy.," which, whether figuring from the parallels and meridians as placed on said map No. 1, or from the Frontera observatory, occupies the proper location with respect to those other definite points for monument No. 1 on the international boundary between the United States and Mexico, but it is shown on Clark's sketch as located on the east side of the river, while its actual position on the ground is several hundred feet west of the Rio Grande, as testified by witnesses Steen at page 2099, Turley at pages 2124, 2126-7, by Campbell at pages 2602, 2608-9, and Owen at page 2709, of the record.

There is placed upon this "topographical sketch," otherwise called Clark's Map No. 1, a road, the course of which is northerly and northeasterly from Clark's Initial Point on his survey of the 32d parallel, and there is printed thereon "Puerta de los Alamitos," (door or opening of the little cottonwoods), and that road passes through "Puerta de los Alamitos." As shown by Steen at pages 2098-9, by Turley at pages 2125, and by Campbell at page 2602, this "Puerta de los Alamitos" is placed on said map over six miles north of its true location on the ground.

At and near Frontera the course of the Rio Grande is sketched upon said map No. 1 as flowing easterly from a point about two miles west of Frontera, giving the river a course from west almost

directly east, and passing about one-half mile to the south of the point marked for Frontera. This is undoubtedly wrong when we refer to the field sketch made by Clark, which is shown in complainant's exhibit 26 after page 3120 of the printed record, marked 5225, which should be 5235. This is also shown in defendant's exhibit 84, on which sketch the course of the river is from a point a little below Frontera to a point about two miles above, and shows the river running close to Frontera, which is further confirmed by reference to the Texas survey No. 3 at page 3338 of the record, and Texas survey 252 at page 3341 of the record, which adjoins No. 3. The notes of the survey for No. 3 clearly indicate that the Frontera astronomical observatory was in the land surveyed as No. 3, and about half way from the southern side thereof to the northern. The river is shown as running close to both No. 3 and No. 252 on the accompanying plat. These things show that the river flowed in more of a southerly course along the base of the hills bordering the east margin of the valley, as stated by Campbell. Attention should be called at this point to the fact that the course of the Rio Grande as shown by Clark's sketch made in the field, and as shown by plats of Texas surveys 3 and 252, places the Rio Grande in the exact locality pointed out by old witnesses in this case, and as placed on complainant's map by engineer Post before he had any knowledge whatever of the printed report of Clark's survey in Senate Document No. 70, which may be taken as a remarkable corroboration of the testimony of the old witnesses in this case.

All of these things which appear on this so-called map clearly show such inaccuracies as thoroughly discredit it, but they are largely due no doubt to the haste indicated by witness Turley at pages 2120-1, 2126, 2135-6, 2139-40-41 and 2184, of the printed record, because Clark was ordered to turn in his work in its then unfinished, and as he stated, unavailable condition. The topography was undoubtedly placed upon the map by one of the draftsmen whom he then had in his employ, as he states on page 307 of the Senate Document No. 70, and in the haste with which they worked in an attempt, as he also stated, to put them in a condition which would

be intelligible, neither he nor they checked their work, and thus it is that grave errors crept into his river. It is quite certain that if Clark himself had ever examined this so-called map, he would at a glance have detected the error as to the location of the international boundary monument.

In thus calling attention to these things I have to some extent anticipated that which will be applicable to complainant's claim that this topographical sketch or map No. 1 has no weight whatever as to the location of the river.

Defendant contends that the wording of the entries in Clark's record at the beginning of his field work, supports its claim that monument No. 1. is far to the west of station 1, and Mr. Warren takes the same position, which complainant asserts is indefensible.

Near the foot of page 16 of Senate Document No. 70, the first entries of Clark's field work on the 32d parallel, so far as the record has been preserved, read as follows:

Survey on Parallel 32° 00' 00"
January 26th. Angles Read from E. by S.
Station 1
From mon. to st. 1 measured (2) 55 ch. 33 ft.; n
base line..... 00° 00' 00"

Mr. Warren construes that entry to mean that the monument referred to is Clark's Monument No. 1, although it does not say so and that it was 2583 feet west of Station 1, which is not far from the point fixed by the Scott-Cockrell commission as the location of monument No. 1. He does not seem to have paid, so far as his report indicates, any attention to the testimony on this point to sustain the complainant's contention that this entry refers to the monument at station 1, or to the authorities cited to sustain that contention. The witness Post at pages 1934 to 1936 of the record testifies in effect that the word "to" means the connec-

tion between the monument and station 1, and shows that the monument was at station 1, and that it is common to speak of a monument as "to," "at," "on" or "for" a station, and there is no contradiction of this, so that it ought to be taken as proved. This interchange of "to," "at," "on" or "for" is in common use among those in the professsion of surveying and engineering, as also by lexicographers and literary authors. Such a meaning of "to" is not at all incongruous. In the American Universities Dictionary we find as the 14th definition of "to" the following: 'A common vulgarism for at or in (a place). In the Standard Dictionary the 4th definition of "to" is: "by; for; in; of; with; in many obsolete and provincial uses to express relations generally noted by other prepositions and easily understood from the context. In Webster's Dictionary, a subdivision of the definition of to, marked 3, is "Invarious obsolete or dialect uses, to occurs where in standard usage on, against, at, with, are now preferred.

There is one member of this court who, like the writer of this brief, comes from that part of the United States, where, as he will recall, there has been in common rural use the word "to" for "at," as when one might say he had "a good dog to home."

A few quotations from the immortal Hosea will be of interest:

"I know wy sentinels air sot; you ain't agoin to eat us;
Caleb aint no monoply to court the senoreetas;
My folks to hum air full ez good as his be, by golly!"

"Guvener B. is a sensible man:
He stays to his home an' looks arter his folks."

"Ef you get me inside the White House,
Your head with ile I'll kin o'nint;
By gittin' you inside the light house
Down to the end O'Jaalam Pint."

In the Autocrat of the Breakfast Table at page 14 of the edi-

tion which I have, it appears that Roe asked Doe "when charity was like a top?" As Doe did not answer, Roe then said, "When it begins to hum."

In a recent story by G. K. Chesterton entitled "The Man Who was Thursday," at page 73, the author speaks of "entertaining five children to tea."

I may say here parenthetically that the Yankee short pronunciation of "o" cannot properly be represented by the letter "u" as Mr. Lowell and Dr. Holmes attempted, but it is the nearest approach that our alphabet permits. The old remark about the man who saw "a toad, and put on his coat, and went down the road, and got on a boat," with the pronunciation which a real Yankee would give the words, illustrates the impossibility of our inadequate alphabet giving the true pronunciation.

This uncontradicted testimony and the lexicographical and literary authorities appear to have had no effect upon the mind of the Special Master, which seems strange, as he himself is what in Texas is still called a "damyankee," which my friend Dan Moody took the pains last year to tell me was all one word, which, however, I already knew.

The meaning of the entry in Clark's notes given by the witness Post is the only one which can make it intelligible. It would be a little plainer if reconstructed to read as follows:

Survey on Parallel 32° 00' 00"
January 26th. Angles read from E. by S.
Station 1.

	00°	00'	00"
From mon. to st. 1, measured (2) 50 ch. 33 ft; n base line			
To flag mt.	2	34	05

When thus reconstructed it will be noticed that the measurement is 50 chains instead of 55. This is because by actual measure-

ment the distance from the north end of base line to station 1, is 50 chains and 33 feet (Record page 1786).

The 55 is undoubtedly one of such errors, perhaps by Clark, or more likely by the printer, of which so many are specified, without contradiction, by Turley at pages 2114 to 2116 of the record which his trained eye discovered in the first eleven pages of Clark's record.

As reconstructed it is slightly different from the form in which the witness Turley makes it at page 2188 of the record, but in substance it is the same, the main idea being that the zeros should be separated from the note about the measurement. This is substantially conceded by the witness Campbell at page 2509 of the record, and will also be apparent by comparison with numerous entries in Clark's record, as will be seen by a cursory examination of a few pages following page 16 of Senate Document No. 70.

It will be well to keep in mind the fact that Clark's monument No. 1 was the beginning point of his survey of the line of the 32d parallel, and that it would naturally, as part of the boundary line, be, as Clark himself states at page 306 of Senate Document No. 70, referred by triangulation to permanent physical objects, which can be easily identified. But unless this initial monument was established at station No. 1, it cannot be found by Clark's record to be at any other place and referred by triangulation to physical objects, and the absurdity of fixing it at a point 2583 feet west of station 1 is obvious, as station 1 was on the first rise above the general level of the river bottom, and 2583 feet to the west would be far out in the region as shown by many witnesses where it could not possibly be permanent when the extraordinary floods about which nearly all the witnesses testified are taken into consideration. It is not within the power of man to build a monument in such a region which would last through a single flood of the kind about which we have had so much testimony. The surveyor employed by the Scott-Cockrell commission says, at page 3179 of the

record, that the land at his 209.8312 milecorner and between that and the 209.66 mile point, is not over two years old.

Aside from the generally inaccurate Clark's map No. 1 and the beginning entries in Clark's field notes, defendant's experts have attempted to locate Clark's Initial Point by bearings given by Clark from Stations 13 and 14 on the Frontera meridian, to an observatory, and assuming that that observatory is the one indicated on that map No. 1 as being south of the Initial Point, have attempted to fix the Initial Point on the 32d parallel as directly north of that observatory. This in no way meets the natural objection which would arise in the mind of any sane person, even if not a surveyor, as to the foolishness of locating a beginning monument of a great survey in the middle of a broad valley of alluvial deposits, where it could not possibly withstand a single one of the tremendous floods testified to by almost every witness whose testimony appears in the record, and at the same time would leave that monument without any direct means of relocation, which Clark gives to his various stations, whether monumented or not, by bearings on mountain peaks, which would, as he said, enable any ordinary surveyor to reestablish the line. A consideration of the purpose of observatories will show that they were not any part of Clark's triangulation system, but served only as checks or guides to the accuracy of the general survey. At pages 3130-1 of the printed record there is a copy from page 296 of Senate Document No. 70, in which Clark states that "from the meridian of each observatory a new tangment was turned and being traced both east and west the surveyor's line was seldom more than 30 miles without a check." On page 279 of said Senate Document No. 70, Clark makes a tabulated statement of 32 astronomical stations which he used in making his survey, but he does not tie any of them to permanent physical objects, such as mountain peaks, as he does his stations upon the line of his survey, and at many points in his notes he mentions monuments at his stations, and there is no place in Clark's printed record where there is any mention made of a monument being constructed where it is stated that it was not at a station.

It is a well known fact that in making surveys for the United States Government of the various boundary lines or subdivisions of the public domain, the surveyor is directed by special instructions to frequently refer his instrument to courses established by astronomical observations upon the sun or north star or other heavenly bodies by which to orient his work and his instrument, or the course of the line as laid down upon the earth's surface. In the earlier surveys complete records of these astronomical observations were not always reported. In any event the observatories were not always reported. In any event the observatories were but temporary affairs, the use of which was only to check the proper working of the instrument for the survey on the proper course and orienting of the line surveyed, and after the corners were placed upon the ground were not considered of further use any more than any scaffolding is of use after the construction of a building is completed. For this reason Clark saw no reason to encumber his record with lengthy descriptions of his observatories, and did not go to the trouble to permanently fix them by recording bearings to mountain peaks and to other prominent features of the topography thereabouts. However, he was careful to establish his observatories that he might keep his instruments checked as to accuracy, and upon which to adjust them should they become thrown out of adjustment in any manner, or upon which to give instructions to his assistants as to the proper manner of doing the actual work of running the lines, but after same was accomplished he abandoned them; and particularly near his initial point Clark undoubtedly placed more than one observatory * * * * But whether or not he had more than one observatory at or near the initial point, it is no more a part of his complete survey than a whetstone, which a carpenter used on which to sharpen his tools, would be a part of an edifice which he constructed with those tools.

I feel that I must give credit for the foreging on the nature and use of observatories to my friend, Captain Jay Turley, who assisted me in the preparation of Part 2 of the original brief for complainant, from which I have taken the foregoing statement, which

I am sure was a part of his contribution to that brief, and I feel great confidence in the accuracy of any such statement by him on account of his eminence and attainments, not only as an engineer, surveyor and practical astronomer, but also in other fields of science, and his high standing as a man.

THE TEXAS SURVEYS NEAR THE 32D PARALLEL ARE PERFECTLY CONSISTENT WITH THE CORRECTNESS OF COMPLAINANT'S LOCATION OF THE OLD RIVER

Complainant's exhibit No. 71, which is a reproduction of a plat certified by Anson Mills as a true representation of surveys made by him, shows his survey beginning with 161 at the boundary line and coming down to 173, and there is nothing to indicate that they could not be platted with reference to the river for which complainant contends, except No. 173, which is a survey of the Canutillo Grant, and will be separately considered.

Strong proof that these surveys down to 171 and 172 should be platted according to the river claimed by complainant, and should be so platted with reference to our location of Clark's monument No. 1, is to be found in Defendant's exhibit 65, which appears in the record after printed page 3372, and is marked in red 5729, and purports to be a map made by the expert Owen for defendant, showing surveys patented by the State of Texas, the Rio Grande as claimed by New Mexico, and as it is located at present, and as it existed in 1905, and the boundary line as shown by Texas patented surveys. On this map there is a line which is marked "line according to Texas patented surveys," which coming from the south strikes the south line of survey No. 34 west of the northwest corner of survey 163, and does not reappear until some considerable distance to the west, from which point it goes on in a general northerly course until it reaches the 32d parallel, apparently at the northwest corner of survey No. 161. The break in this line just referred to appears to be just the same distance as the dis-

from Clark's station No. 1 as shown on the map and the monument No. 1 as reestablished by the Scott-Cockrell commission and as claimed by defendant. This quite clearly indicates that Mr. Owen attempted to plat the surveys beginning with No. 161 in accordance with the claimed location of Clark's monument No. 1, but when he reached the place where the gap in the line appears, he found that it would not connect with that line as shown by platting the surveys from the south towards the north, beginning with 171. Going from north to south he attempted to tie the surveys to a river 600 feet west of the monument No. 1, as claimed by Texas, and as a result he was compelled to push the surveys as far down as the south line of No. 35, which is immediately north of No. 34, to the west so as to make them conform to an imaginary river as indicated by the alleged Salazar-Diaz survey, which is marked upon the map, and if he had platted these surveys from the north in conformity to what New Mexico claims to be Clark's monument No. 1 at station No. 1, he would have them all just as much farther to the east as the distance on the map from that which Texas claims to be Clark's monument No. 1 to Clark's station No. 1 and there would have been no gap in Owen's boundary line, according to Texas patented surveys.

My recollection is that I discovered this during the hearings before the Special Master and carefully and elaborately called his attention to it. This would undoubtedly have the effect of pushing some of these surveys into the foothills on the east side of the valley, which Mr. Warren appears to consider such a defect as makes the surveys impossible, but none of them would run as far east into the foothills as the Marsh survey, and if there were anything wrong about it, it might be well attributed to the deficiency of the surveyor Mills, as certified by John H. Clark at page 271 of Senate Document No. 70. Still the surveys would give the owner a "frontage on the Rio Grande," which Mr. Warren seems to think is important, as the owner requested the surveyor to locate his land between survey No. 34 and the Canutillo Grant, "with its requisite frontage on the Rio Grande" as directed in No. 11 of

defendant's exhibit No. 15, which begins on the 2d page after printed page 3222 of the record, and is marked in red 5496. If the river were where the complainant claims it to have been, it would necessarily have been the western boundary of these surveys, through No. 172, whether that gave the owner, Maverick, land in the valley or on the foothills.

As to the deficiency of the surveyor Mills, it will be shown quite thoroughly by an examination of his survey of the Canutillo Grant, made in 1860, which will be next considered.

Briefly, if Clark's monument No. 1, is correctly located at station 1 as I submit that I have hereinbefore clearly shown it should be, those surveys, beginning with 161, which is tied to that monument, follow down the course of the river as depicted by Post's map.

CANUTILLO GRANT

It is hardly necessary to call the attention of this court to the nature and importance of the juridical act of delivery of possession of a Mexican grant, as that matter has been frequently considered. We will content ourselves by a mere reference to the case of Van Reynegan v. Bolton, 95 U. S. 34-5.

The papers showing the Canutillo Grant are in complainant's exhibit No. 60 beginning on page 3123 of the record. There is first a petition to the ayuntamiento of El Paso by Juan Maria Ponce de Leon for himself and twenty-nine others asking for one and a half leagues of land at the place called the Borrego Bend. The ayuntamiento on May 30, 1823, acted favorably on the petition and appointed four of its members to carry into effect the measurement of the land asked for, including Juan Maria Ponce de Leon as one of them, and on June 3 and 4, 1823, these persons performed the duty imposed upon them, as shown on pages 3125 to 3127 of the record. They proceeded to a measurement of the land granted, with a cord (cordel) fifty varas in length, reciting that they observed the cardinal points because there was not at that place an expert mathematician to lay out the courses with accuracy (p. 3126). They

say that "on the east course, up-stream," evidently from "the point of the Canutillo toward the lower side," indicating that the place was already known by the name of Canutillo, the measurement reached the point of Artesa Grove and in front of the round slough of the Sanguijuela (which are two well known places on Post's map between pp. 8 and 9 of record), and north of Canutillo, where a cottonwood tree was marked. That they were in error as to being on an "east course up stream" is apparent from a consideration of the general course of the river which is from north to south and from what appears further along in the record of their proceedings as to the respective locations of the river and the hills, it being kept in mind that the hills are on the east and west sides of the valley and must have been there always.

The measurement was of 3750 varas, and they returned to the central point to make the second measurement which they say was on the west course of 3750 varas ending at the lower point of the Borrego Bend which is a well known locality on the west side of the river, opposite, or above, White's Ranch or Frontera and far south of Canutillo and referred to by some of the witnesses, which shows that their "west course" opposite to their mistaken east course, was really south, down the river. They then returned to their central point "with the object of making the third measurement on the south course," which obviously would be really on an east course, and they could not complete that measurement because they encountered the river, so high that it could not be crossed. This clearly shows their "south" course to be an east "course, while their last course which they call "north," would really be west, going as it does to the hills before completing the 3750 varas. Thus reconstructed, the record of the measurement of the grant, places the river where complainant claims it to have been in 1850.

Now, Mills' survey, so far as preserved in our record, appears at Nos. 18 and 19 of defendant's Exhibit 15 which follows page 2222 of record and on a plat following page 3148 of the record, which is plaintiff's exhibit 65, and a mere inspection of it discloses

at a glance, that it does not in any way conform to the proceedings of the committee of the ayuntamiento the record of which is in effect the act of possession of the grant and is the only proper foundation for a survey thereof. At page 2751 of the record, it appears that the Mills survey was made in August, 1860, and it is worthy of note that the map shows "old river of 1826" on about the course and about where complainant's witnesses have located the river of 1850 as shown on Post's map and at the place which would correspond with the record of the measurements which were made in 1823. There is no possible way of harmonizing Mills' map with those measurements of the Canutillo Grant, or with the facts on the ground. Moreover, the Rio Grande valley is not wide enough at any point in that region to hold Mills' survey of this grant because as shown on complainant's Exhibits 73, 74, 75 and 76 opposite page 3153 of the printed record, if the course of the river of 1826 as shown thereon is platted to fit along the east side of the valley, then the river for the west side of survey No. 173 would be placed out upon the foothills along the west side of the valley; and if, in platting, the western course of the river is adapted to the hills along the west side of the valley, then the "river of 1826" is out on the hills to the east side of the valley; and further, if any of the ties are taken as called for in the notes of the purported surveys, then varying other impossible positions result as will be apparent from complainant's Exhibits 73, 74, 75 and 76 opposite page 3153 of the printed record, and by witness Post on pages 2861 to 2864 ,and at pages 2876 to 2879, and on page 2880 Post states "that there is not sufficient room between the hills on the east side of the valley and the hills on the west side of the valley to place said survey," and there is no contradiction of this evidence.

The Randolph survey made in 1886 is shown on complainant's Exhibit 66 which follows page 3150 of the record, but it is shown on page 2752 of the record that it was merely an attempt to reproduce the survey made by Mills in 1860, and it was made many years after the great change in the course of the river in 1864 testified to by numerous witnesses, and Randolph may then have

found a river on the west side of the valley, but a comparisou of the two maps does not show much success in the attempt to reproduce the Mills survey as will appear on complainant's maps, Exhibits 73, 74, 75 and 76, opposite page 3153 of the record. Mills' affidavit at page 3034 tells how he established his initial point on the lagoon with assistance of old Mexicans, and both maps locate Canutillo, or the central point of el Canutillo, at about the same place, and at a place which harmonizes with our interpretation of the record of the measurements made in 1823 under the direction of the ayuntamiento, and this indicates that, upon the change in the course of the Rio Grande, testified to by many old witnesses, from a location bordering the hills along the east side of the valley, to one near the western margin of the valley, the Texas surveyors erroneously and without due consideration embraced the opportunity to extend the political boundaries of Texas, and thereupon did attempt wrongfully to follow the then recent and temporary channel of the Rio Grande and proceed to make grants, surveys and patents of the lands embraced in the surveys alleged to have been made by Anson Mills, surveyor, as shown on complainant's Exhibits 73, 74, 75 and 76 preceding page 3153 of the printed record.

In this connection it is of interest to note that defendant's intelligent expert, Owen, at pages 2692-3 of the record, indicates the propriety of resorting to information from old Mexican witnesses in order to make a survey of the Canutillo grant, which is the method adopted by complainant in making its location and survey of the river of 1850.

The testimony of the witness, Steen, at page 2951 of the printed record, is also interesting as showing the reliability of this class of testimony. He tells of an old Mexican who testified in court that the corner of a grant was marked by a large cottonwood tree, but he, Steen, conversant with the grant, did not remember the tree. He and Mr. Will Tipton of Santa Fe, the referee in the case, went with this witness on the ground where there was no trace of a tree, but the old man was so insistent as to the location

of the tree, that they obtained shovels and, digging, found the stump of a tree which had been burned, about a foot below the surface.

Mr. Warren at pages 49-50 of his report disposes of all of the objections to the Canutillo survey by saying in effect that it makes no difference whether the surveys were or were not incorrect, and that it is possible that these surveys laid claim to land west of the Rio Grande, and the plaintiff has introduced evidence to that effect, but that, even if this were true, it would not alter the fact that the surveys did lay claim to the land as far west as the Rio Grande, and the quesion whether the surveys conform to the original grant is only a matter of controversy between the State of Texas and its patentee or other private claimants, and has no bearing upon the issue as to whether in fact the patent was issued for the land described and acted upon by the patentee accordingly.

It should be stated that there is no issue in this case as to whether a patent was issued for the land described, nor as to whether it was acted upon by the patentee accordingly, but there is absolutely no evidence that any one occupied or used the land patented under any claim based on that patent. Mr. Warren evidently did not understand why any evidence was introduced or any argument made as to the defective or incorrect character of the surveys of the Canutillo grant. One reason for doing so, was to show the inaccuracy and worthless character of Texas surveys of early days, and the other was to show the impossible character of the Texas claims, no matter whether they were patented or not, necessarily extending in this instance beyond the limits of the valley of the Rio Grande, as we have shown, either on the east side or on the west side of the valley, because distinct evidence to that effect was given by the expert Post, and there was never any contradiction of his evidence. This shows the preposterous character of defendant's claims, and greatly impairs all confidence in the defense.

In addition to what has been already hereinbefore set forth

about the Canutillo grant, I call attention to the fact that the intention of the granting authority was to give a tract of land, square in form and measuring 7500 varas on each side, and the surveys by Mills and Randolph do not remotely pretend to cover such a shaped piece of land, although the eastern boundary does measure the proper length. On Randolph's map there is marked a central point of the grant, which is not far from the foothills on the east, so that there was not a chance from that central point to make the full measurement to the east even if high water had not prevented, which the original grant appears to call for.

THE SERIES OF TEXAS SURVEYS BEGINNING WITH NO. 154 AND RUNNING TO NO. 262

Before beginning any discussion of these surveys I must state in a general way what they are, and what defendant hopes to prove by them. I do not intend to go into a detailed examination of all of these surveys, as it does not seem essential or important to do so, but I will proceed far enough to show that they do not lend themselves to proof of defendant's contentions. It is clearly intended by the presentation of these surveys to show the course of the river west of Frontera and over to the western side of the valley. Examination of defendant's exhibits 62 and 65, which are maps made by Campbell and Owen respectively, shows these surveys as claimed by defendant and the clear purpose of arranging them as they are shown.

Beginning with No. 154 made in November, 1859, near Frontera, these surveys, as arranged by defendant's experts, purport to run from there west and to be tied one to another and to the river at their southern ends and they are Nos. 155, 158, 156, 157, 259, 260, 261 and 262. Of these, 259 to 262 purport to have been made in 1871, which was long after the time of the great change in the course of the river, which has been testified about by many witnesses, without contradiction, as having taken place from 1862 to 1864, when the river may have been at the place indicated by these

surveys as arranged by Campbell and Owen, but the others were all made earlier.

It is obvious that a correct location of survey No. 154 is essential, to the correct location of the other surveys which are tied to it. Survey No. 154 will be found at page 3327 of the record, and is dated Nov. 12, 1859. It was made by Anson Mills, of whom Mr. John H. Clark in May, 1858, said that he "was entirely deficient as to the duties of his position," his position being that of a surveyor, and that certificate of deficiency on the part of Mills may account for what he did in making his alleged survey No. 154, (if he actually made it) which makes it absolutely impossible of location on the earth's surface. The notes of that survey will be found at page 3327 of the printed record, and as far as material, are as follows:

> "beginning at a stake set on the bank of the river, which bears N 38 1-2 W 7 miles 328 yards (37871 ft.) from the upper corner of survey No. 1 made for M. Hughes from which an old lime kiln on the bank of the river bears N. 57 E. 940 varas (Major Emory's 2nd monument on the Mexican boundary bears S. 20 E. and the 3rd bears S. 47 W.)"

It is clear that there are three sets of ties given by the surveyor, in making his location upon the ground, for the beginning of the survey. Plaintiff's exhibit 69 to be found at page 3150 of the printed record shows the different sets of conditions to be met in consequence of these ties. The first tie named is the one from the upper corner of the Moses Hughes No. 1, which is N. 38 degrees 30 minutes west 7 miles and 328 varas therefrom, but this tie takes 154 far away from the river and places it out on the hills, which is manifestly wrong.

The second tie given is the one to the lime kiln, which is given in these notes as being on the bank of the river and bearing N. 57 E. 940 varas from the southeast corner of 154. This is the tie adopted by both Campbell and Owen in placing 154 and the other surveys on their maps, being defendant's exhibits 62 and 65.

This tie is manifestly wrong, because it is at the greatest variance from the first tie, as is apparent on plaintiff's exhibit 69; also because the general course of the river as shown by Texas surveys hereinafter referred to show its impossibility, and because monument No. 2 on the international boundary line is not visible, a peak of the Muleros mountains obstructing the view, and further because the location of the lime kiln is not disputed, and if the river bank was at the lime kiln, it would be where the complainant claims the river to have been, and it could not make a wide bend to the west to reach this location for the southeast corner of 154 as no such bend is indicated on either of defendant's exhibits 62 and 65. In other words, it is impossible that the lime kiln and the corner of 154 could both be on the bank of the river. Defendant's expert Owen at pages 2727-8 of the record testifies that monument No. 2 cannot be seen from the north side of the Muleros mountains anywhere at all, and that it is impossible to see Monument No. 2, and the surveyor may have thought he was looking at monument No. 2, and he may have been looking at an old monument on the Muleros mountains, but he could not have seen monument No. 2. He further says on page 2728 that if the bearings on the two monuments were reversed they would not agree with the field notes and would not fit the points either, and that is probably where the surveyor wrote his bearings in confused order, or attempted to write them from memory a little while afterwards. Complainant's exhibit 69-A shows this block of surveys from the two ties given to Emory's monuments 2 and 3 on the international boundary taken from the stake on the bank of the river, which were undoubtedly the more reliable of all these ties given, because Emory's monument No. 2 is visible from that point where it is not from any point to the west thereof, because it is on or near the bank of the old river as claimed by complainant, and because this places 154, 155, 158 in the position where their southern river line is in position and on the river shown by the old witnesses and in their testimony, and by plats of Texas surveys from Nos. 252 and 3 and others going up the river.

Without going into the details of all these surveys as platted by defendant's exhibits, which would unnecessarily incumber this brief, I will say that defendant's own exhibits show that this whole series of surveys can be better platted as having their southern ends on the river claimed by complainant, than upon any river indicated by the Diaz-Salazar survey, as attempted by defendant's experts, especially as defendant's expert Campbell testifies at page 3056 that if all these surveys are platted from the connection to the lime kiln, just as the field notes require, they would cross the river into New Mexico, on the western hills.

By reference to page 3338 of the record we find the field notes and plat of survey No. 3 made in 1854, in which is included the location of the Frontera observatory as the notes indicate, and at page 3341 we find the resurvey No. 252 made in 1873, with a plat on which is shown both No. 3 and No. 252, and the course of the river at their southwestern ends, which it may be noted is the same as that indicated on Clark's field sketch which appears in his record at page 5 of Senate Document No. 70, and in complainant's exhibit No. 26 and in defendant's exhibit No. 84.

I call attention to the plat which accompanies resurvey of No. 155, tied to the upper corner of No. 156, appearing at page 3323 of the record, which shows the river as its southern boundary running in a southeasterly direction from the northwest, as it would undoubtedly run if platted as bounded on the south by the river claimed by complainant. Next I call attention to the plat accompanying No. 158, tied to the upper corner of No. 155, to be found on page 3316 of the record, on which also appears No. 155 and No. 156, showing the same direction of the river at the southern ends of 158 and 155, with a different course, however, for the southern boundary of 156, which was made by the deficient Mills, as is shown by the plat accompanying its survey on page 3313 of the record.

The plat accompanying the resurvey of 157 at page 3310 of the record shows its southern river boundary, which begins at the southwest corner of No. 156, as nearly the same as that of 156, but

shows the course of the river west of 157 for a short distance in the same direction as in No. 155.

The plat accompanying survey No. 259 on page 3306 of the printed record, which begins at the northwest corner of 157, shows the river as running somewhat south of east from the west.

The plat which accompanies survey No. 261 at page 3299 of the record, beginning at the southwest or upper corner of 259 shows the river as the southern boundary of 261 and 260 both, as coming from the northwest in a southeasterly direction.

The plat which accompanies survey No. 267 at page 3293 of the record shows the southern boundaries of 250, 251, 156, and 158 at the river running from the northwest to the southeast, and not at all like the course of the Diaz-Salazar river relied upon by defendant and by Mr. Warren.

All of these surveys as shown in the plats referred to, indicate a river in substantially the same position as that which is claimed by complainant, and as shown by Mr. Post's map filed as exhibit C with the Bill of Complaint, and there is nothing to prevent their being platted to their full extent as bounded at their southern ends by complainant's river without getting out of the valley of the Rio Grande, as Mr. Campbell, defendant's expert, clearly admits.

A detailed examination and discussion of this series of surveys, which are all dependent upon the correct location of No. 154, which may be found to a considerable extent in No. 2 of the original brief for complainant, beginning with page 37 thereof, and running to page 53, would show that the surveys are of such haphazard and uncertain character that they are of no weight as to the location of any other river of 1850, and the attention of the court is invited to that brief if there is any curiosity as to the correctness of my statement as to the character of these surveys.

There is nothing herein stated which was not clearly and definitely before the Special Master, to whom was presented not only the record, but the briefs of both parties, and it was definitely urg-

ed upon him that these surveys could be platted to conform to what has been called "Post's river," better than to the imaginary river to which defendant's experts Campbell and Owen attempt to make them conform.

Moreover, the attempt of Campbell and Owen to locate these surveys, would throw the river lines of the western ones out on the hills where no river ever could have run, as is, in effect, testified by Post at pages 2874-5 of the record, by Turley at page 2128, and substantially admitted by Campbell himself at pages 2537-8, while no such objection can be urged to platting these surveys on "Post's river." This also aids in discrediting the so-called Diaz survey to the river of which Owen and Campbell seek to tie this series of surveys. The Diaz survey will next be considered, and shown to be fictitious and unreliable.

In order to show in such manner as to make the foregoing statements as to these surveys easy to be understood, I have had prepared an addendum to this brief, made up of exact copies of the plats accompanying the surveys, which are defendant's exhibits, and therefore binding on Texas, and convincing that the work of her experts as to these surveys is one of imagination, trying to fit them to their preconceived Diaz river which is essential to defendant's case.

THE SALAZAR-DIAZ SURVEY

This pretended survey is the most important piece of evidence presented by the defendant, and without it, it may properly be said that the defense utterly fails. It purports to have been made in August, 1852, and complainant contends, as only a copy of it is put in evidence, that the copy is not so authenticated as to be admissible, and that the so-called survey on its face discredits itself to that extent that it cannot be given any weight in the solution of the disputed questions involved in this case. I should say that only a copy of a translation of the alleged record of the survey has been put in evidence, but at the hearing on these exceptions I will have

for inspection by the court the copy which complainant contends is not properly authenticated. The theory of the complainant as to this Diaz record is necessarily conjectural in character, but is corroborated by some things which appear in the record, and it is believed that this Diaz record was not actually made in 1852, but was manufactured many years later for some ulterior purpose, possibly for use in connection with what is known as the Chamisal dispute as to the boundary near El Paso. I ought to say that our theory was that this so-called survey was manufactured as to that part above El Paso on the river and up to Amoles, which is about 20 miles from El Paso, and covers nearly all of the disputed ground. We were so certain of this that we were sure the original notes purporting to have been made by Diaz would show the fact if we could get them, and as shown in the record, I induced Mr. Thomas B. Catron, who was one of our first senators after the admission of New Mexico as a state, to go to the City of Mexico, taking with him the copy of the Diaz notes in Spanish, to try to find the original in the government records, and as Mr. Catron testifies in the record, beginning at page 3073, he was entirely unsuccessful, although he was familiar with the Spanish language and familiar with Spanish documents and records, and had visited Mexico several times looking up other documents connected with land cases, and was thoroughly competent to make such a search. His testimony shows that he did make as full a search as was practical, and I cannot resist the strong impression that there was some undisclosed reason for the apparent unwillingness to produce the original.

It is interesting to note how Mr. Warren looked at this question, as shown on pages 59-60 of his report, from which I make the following quotation:

> "The plaintiff questioned the authenticity of this Survey, and suggested that it was not made at the time that it purported to be made, but that it may have been manufactured in Mexico for some ulterior purpose. I find no evidence to sustain any doubts as to the authenticity; and since it was to the disadvantage of Mexico that the river

should be located on the west rather than the east side of the valley, I can conceive no reason why a fictitious survey should have been construed which would establish a boundary contrary to the interests of Mexico."

This view of Mr. Warren's might be applicable if our suggestion had been that the record was manufactured in 1852, as it purports to have been made, but is simply absurd as applied to our suggestion that it was manufactured many years later, and it is not true that plaintiff suggested that it might have been manufactured in Mexico. As preliminary to the further consideration of this matter, I will call attention to one of the improper additions to the record made by Mr. Warren, which appears on page 60 of his report, which is taken from the record of the International Boundary Commission at a meeting October 20, 1908, where reference is made to "the original field notes of the Salazar survey, recently discovered in the Mexican archives." It seems to suggest the possibility of their non-existence before that recent discovery. I also call attention to the statement by Mr. Catron, which appears at page 3087 of the printed record, in answer to a question as to whence he understood those representing the Mexican government procured the field notes, when he said: "I can only give you matters of hearsay; I do not know and cannot say through how many channels that hearsay comes; I was informed that the document which Mr. Puga had in the Chamisal case was obtained from the widow of Mr. Agustin Diaz—that it was so represented to have been obtained from her a short time before the Chamisal arbitration, and that it was a document that had remained in her possession after her husband's death, if he had ever made it." As Mr. Catron stated, that was a matter of hearsay, but sometimes hearsay may have some evidential value.

These two things seem to cast some doubt upon the record of the Salazar-Diaz Survey, which has been put in evidence, and may perhaps account for the peculiar certification of the copy from which the translation was made, about which Mr. Catron testifies at page 3088 of the record and as translated by him, it is as follows: "is a copy which I certify to, Mexico, January 22nd, 1914." Mr. Cat-

ron further testified that he declined to pay three men $10.00 a day each to make such search for this record as they might make, and for the length of time they might want to take, which would not be less than 15 days, and thereupon counsel for Texas at page 3089 of the record asked this question:

> "But that is the usual Mexican custom to get all out of you they can to give a proper search for records?"

And to that question, Mr. Catron answered:

> "It had not been so far as I had found in that particular place. I had been there several times before and never had to pay a cent for the search or memorandum or information that I got, except to pay for the copies made."

Mr. Catron also testified as appears at page 3076 of the record that Mr. Puga, who attempted to certify to one of the sets of the Diaz notes, and who had been a member of the Mexican-American Water Boundary Commission, refused to give him any information about it, and refused to let him see the notes, a copy of which had been put in evidence, and that he absolutely and unqualifiedly refused to appear and testify in this case, which I submit tends to confirm our suspicion as to the character of the record.

I cannot at this time, more than 2,000 miles away from Washington where the record presumably exists, say anything about the Chamisal proceedings, to which Mr. Warren has made reference in his report, but will hope to be able to do so before these exceptions come on for hearing.

That the Salazar-Diaz Record, as Mr. Warren calls it, discredits itself on its face, is indicated by the fact that just before the giving of courses and distances between stations Rx and Rxiii, Diaz appears to have said that there were two rivers—and that he was following a river different from the one we are seeking to locate. This is quite clearly stated by the witness Steen at pages 2957-8 of the record, where he calls attention to the fact that Diaz said "the following day (error for 'table') is the conclusion of the details of the Rio Bravo Nuevo, continuing from Rx at Frontera to Rxiii at

Los Amoles." Nuevo means new, and Rio Bravo is the common name for the Rio Grande, so that the words mean the new Rio Bravo or new Rio Grande. This note will be found at page 50 of defendant's exhibit 71, a little before page 2793 of the record, and seems to show that Diaz was meandering a new river, possibly created by the high water earlier in the season, which caused him much trouble below El Paso, as to which see pages 3293, 3377-3381 of the record.

It seems certain that the field notes of the survey, which appear to have been made by Agustin Diaz and his brother, are uncertain and difficult of interpretation and reestablishment, as indicated by some of the testimony, such as that of defendant's expert Owen, when, as shown in the printed record at page 2703, he said, "I do not regard that meander as of definite importance," and in page 2704, that he did not understand the Diaz field notes and so did not regard the traverse as of any importance, and yet this traverse which the intelligent Owen does not regard of any importance is what defendant and Mr. Warren principally rely on to defeat complainant.

There is much testimony by the experts on both sides about the variation of the magnetic needle in the instruments used in making this alleged survey, and concerning the labors performed by them in their efforts to decipher, understand and relocate the alleged Diaz field notes, and the variance in the testimony clearly shows the unintelligible and uncertain condition in which this matter finally rests, and as shown on defendant's exhibit 62, on which his chief expert Campbell places a solid line and a dotted line for varying positions of the Diaz triangulation system, and at page 2669 of the printed record defendant's expert Owen says "on account of these differences in the declination of the needle used in the calculations of the Salazar lines in both traverse and triangulation, we find the three positions for all of these Rs," meaning the reference points of the triangulation system on the river.

The expert Post at page 2933 of the printed record states "that

the river line as run by Agustin Diaz cannot be located in accord with his triangulation system, there being a considerable amount of errors—in some instances probably balanced errors; as I have explained heretofore in my testimony, the manner in which it was taken would preclude any exact reproduction of the line on account of the errors that exist." And on page 2935 the witness Post further states: "I think it is an evident fact that any location made with all of the errors that exist in the Diaz line would be an arbitrary and assumed location." And on page 2936 he states: "I have not considered the river line of Mr. Diaz of sufficient importance to determine whether there was an exact closing or not, because of the fact that under the conditions in which he took or made this line, you would not expect an exact closing."

The Diaz record indicates that his work was done in the early part of August, 1852, and Major Emory established the astronomical observatory at Frontera in April 1852, so that it is not at all probable that his work marking that observatory had disappeared or had been changed, and yet the uncontradicted testimony shows that the location by Diaz of Frontera was 250 or 253 feet away from the Emory Frontera. The expert Campbell at page 2809-10 of the printed record says "it is not impossible that Salazar may not have selected the point established by Major Emory." And he further says that the work by Mr. Owen locates Major Emory's astronomical point at the point which we determine in this case as the point occupied by Clark as the astronomical point at Frontera, and that the position of Frontera as fixed on the ground by Salazar's field notes, introduces a discrepancy between the position of the astronomical point so determined and the position of Frontera as fixed on the ground by Salazar's field notes, of 250 feet. Mr. Steen's answer to question 376 on page 3020 of the record is interesting. The question and answer are as follows:

> "Mr. Steen, bearing in mind as appears from this report that Major Emory completed his location of Frontera in April, 1852, and that this work by Diaz from Frontera up the river was done in August of the same year, is

it credible that the skilled engineer, such as we now think Agustin Diaz must have been, if he had gone in person to Frontera could have made such a location as he did 253 feet away from what Emory had located as Frontera?" The answer was:

"I would not think that he would, and I should not consider it possible for him to do so."

The only conclusion to be drawn is that Agustin Diaz never went on the ground at or near Frontera in August 1852, or he never could have made such a mistake.

The difference between the point for Frontera by Clark and by Diaz is 253 feet, as stated by the expert witness Post on page 2903 and at page 2931 of the record. The indication is strong that if the Diaz survey was ever actually made, it must have been long after 1852, and even long after Clark returned to Frontera in 1859, and long after the marking of the Frontera astronomical point by Emory had ceased to exist on the ground.

Some doubt is cast upon the genuineness of the record of the work alleged to have been done by Diaz by the fact that in the alleged record of his work in the numbering of stations there are used the letters "K" and "W", although there are no such letters in the Spanish alphabet, which was in use in Mexico.

Another interesting thing about these alleged Diaz field notes is as stated by complainant's expert Post on page 2948 that Diaz appears to have gone "so far as to read these angles to fractional parts of seconds; which I think to an engineer would be quite unnecessary," and it is a fact that there is no instrument used by surveyors in the field which can be read to less than fractions of minutes, let alone fractional parts of seconds, and yet defendant's expert Campbell at page 2521, speaking in praise of the work of Diaz, says that it "was a carefully executed system of triangulation, the triangles all being carefully balanced to fractions of seconds." And at page 2933 of the record complainant's expert Post in effect indicates, as to the angles and field notes of Diaz at the point indi-

cated as Muleros-Frontera, that it was "practically perfection, if such a thing could happen in engineering; and that such perfection was in effect due to a fixing up of any errors in the office which might be found in the reading of the instruments." We should in this connection keep in mind the fact that the alleged Diaz record indicates that Diaz made his erroneous location of Frontera between August 1 and August 6, 1852, which was less than four months after Emory established the Frontera in April, 1852, when the markings on the ground made by Emory could hardly have disappeared, and it is conceded that Clark in 1859 was able to relocate Emory's Frontera, while the Diaz record as Campbell states, fixed a Frontera 250 feet away from the location by Emory and Clark, as to which Campbell at page 2810 in answer to a question if the Clark notes are such that there can be no mistake about the exact spot within a few feet, said: "No, we are all agreed as to that."

Attention should also be called to the fact that according to his alleged record, the engineer Diaz between August 1st and August 6th, 1852, completed his triangulation and by August 9th had finished his work up to Amoles, as is shown in defendant's exhibit 71, and also that it took him about 4 months to make his survey from San Ignacio to El Paso, a distance of approximately 40 miles, as Campbell states on page 2779, and that it took him only nine day to do his work from El Paso to Amoles, which as Campbell states, is about 20 miles. The Diaz record, to be definite, shows that from San Ignacio to El Paso he was engaged from March 27 to July 31, 1852. These figures are quite convincing that the Diaz record cannot be true, especially as there is no testimony to indicate that the country between El Paso and Amoles was of a character to make the work less difficult than in the country between San Ignacio and El Paso. The record of his work between San Ignacio and El Paso appears to be good.

It appears that defendant's experts did not follow the Diaz line south of Frontera and into the canyon of the Rio Grande, the solid rocky sides of which have confined the river to an identical course

throughout an immensely long period of time, as is shown by the expert Campbell at page 2568, where he states in substance that he made no examination on the ground except that he determined the actual length of the line Muleros-Frontera, and on page 2703 of the record, the expert Owen says that he had run 4 or 5 courses from Frontera south as far as the Courchesne bridge, which is some distance above the actual canyon.

The experts for complainant in order to make a more complete investigation of the alleged survey purporting to have been made by Agustin Diaz in 1852, retraced the line as called for in the field notes of Diaz, and have represented the condition thereof upon complainant's exhibit 77, of which an enlarged copy is in the office of the Marshal, and will be exhibited to the court when the case comes on for hearing. The expert, Post, at pages 2880-1-2 of the record, states that they platted the location on the west bank of the river, on Exhibit 77, as set forth in the Diaz field notes, the exhibit 77 being four maps of the part of the Rio Grande survey by the Mexican commission for the location of the international dam. Post says that they ran a line upon the ground according to those field notes through the canyon from the American observatory as located by Diaz, and that the line falls upon the hills as indicated upon the map. He says on page 2881 that on that exhibit one will note that at points "2" and "A" the Diaz line falls so close to the hills on the east side of the valley, that there is not sufficient room for a river between the Diaz line, which represents the west bank of the river, and the foothills on the east, and that, continuing down the said Diaz line, at a point marked "b," which is just above the smelter and on the west side of the river, this line begins to ascend over the sides of the rocky hills 70 to 80 feet above the Rio Grande, passing as much as 300 feet back from where the river could run, or where there are any signs of the river ever having run. He further says that this line passes about 225 feet east of the international boundary monument on parallel 31° 47'. Below the international boundary line the Diaz line passes a considerable distance back upon the foothills, where there is no ap-

pearanc of the river having run in recent years, or that it ever ran there at any time. He further states on pages 2882 that "if this survey through the canyon is a sample of the surveys made by Diaz where we are able to determine the lines which he actually ran, or the lines which his notes call for, then we may know what to expect and have a fair sample of what he did in the line above Rx on up to RXiii."

I would say rather that the inference must be that there never was any survey by Diaz through that canyon or anywhere else above El Paso. There is reason to believe that the triangulation which purports to have been made by Diaz between Frontera and Amoles was actually made by some one, but it is difficult to believe that Diaz had anything to do with it in 1852.

Post speaks as he does because above Frontera, which was Station Rx, the country opens out into a broad valley, where there is little or nothing by which to check the Diaz line, although Post says (Record p. 2882) that Mr. Steen and he also ran the Diaz river from station Rx to Rxiii by the field notes of the survey and that at a point "B" below the alleged corner of survey No. 157, as shown on plaintiff's exhibit No. 76, the line passes about 300 feet on the edge of the hills, and that they had no other place along this line by which they could check the Diaz line by any natural monuments or objects.

A close examination of said exhibit 77 will show that the Diaz line as called for by his alleged notes never could have been run by any surveyor of the most unskilled character, and that the only sane conclusion must be that such a survey and such a line never was made by any living person, and yet it is upon the alleged work of Agustin Diaz and his brother that the case for the defendant principally rests, and it is upon it that Mr. Warren has made the greater part of his findings against New Mexico in favor of Texas.

It is to be borne in mind that there is substantially no contradiction of this evidence given by complainant with regard to the alleged Diaz survey, but it may be noted that the Texas expert Owen,

first states at page 2708 of the record that "at no place, no, sir, at no place," did the Diaz line lead him out of the valley on the hills, but he then acknowledges that the line as shown by the alleged Diaz field notes "would be probably up pretty well on the bluff there. The bluffs are somewhat perpendicular there." He states that the bluffs are opposite the cement plant, but he does not think that the river ever got up that high It is difficult to understand how Mr. Warren in view of this testimony, which was particularly and strongly urged upon him at the hearings in May, 1925, could have been willing to anchor his advocacy of Texas upon any such record of a survey as that presented by defendant as the work of a surveyor and engineer of capacity in the year 1852.

AS TO THE MOTION TO EXCLUDE THE ALLEGED SALAZAR-DIAZ RECORD

The motion appears at page 3072-3 of the record and one of the grounds therefor is a lack of proper authentication. The authentication relied on by defendant and Mr. Warren is as follows:

"Es copia que certifico Mexico, Enero 22 de 1914," Romulo Escobar," which may be translated, "It is a copy which I certify, Mexico, January 22, 1914, Romulo Escobar."

It does not state of what it is a copy nor where may be the original nor why it is certified. It is true that Mr. Escobar is identified by the certificate of the Consul General of the United States at Mexico as the sub-secretary of the Department of Fomento of Mexico, but there is nothing to show that he had in his official charge the thing purporting to be a record of the Diaz survey, nor does he show that it is a copy thereof, and when we consider the particularity with which official certificates are usually made in Mexico, it seems certain that he had some reason for making a certificate in the language he used.

Moreover, if any importance is to be attached to the statement of Mr. Puga, a translation of which appears at page 2391 of the

record, the field notes of Don Agustin Diaz are in the archives of the commission of which Puga was a member and not in the Department of Fomento.

Mr. Warren disposes of this by saying, at page 58 of his report, "that the certificate is somewhat incomplete and informal; but even if this exhibit was not technically admissible, I am of opinion that, under the decisions of United States v. Wiggins (1840) 14 Peters 334,346, and United States v. Acosta (1843) 1 Howard, 24, the objection to its admissibility, made by counsel for plaintiff, came too late." As to this, I submit to the court that there is nothing to be found in those cases to support Mr. Warren's opinion, nor even in the case of Benson v. United States (1892) 146 U. S. U. S. 325,-332, cited in a foot note, although the last, to a careless investigator, or one like Ignatius Donnelly, intent upon finding something to support his preconceived theory, might seem in point, but it really is not. The court speaks as follows at page 333:

> "But if that rigorous rule does not now prevail, and a party has a right to any time, by motion to strike out, to secure the removal from a case of objectionable and incompetent testimony, still we think no substantial error can be adjudged in overruling this motion; for here not only did the defendant not object to this testimony, but on the contrary it was admitted in the way suggested and insisted upon by his counsel. The court accepted the suggestions of such counsel, and gave the witness the advice and directions urged. The testimony was in reference to a subordinate matter—mere identification of certain papers. No objection was raised until after the witness had left the stand and that the trial had proceeded at some length, and when, perhaps, witness by whom the same fact could have been established were discharged, or when too late to obtain other witnesses by whom it could have been proved, and the defendant himself, as a witness in his own behalf, testified as to having written the letters."

In the present case no such condition exists. The Benson case was one of a trial before a jury, where there was a definite limit

in sight to the taking of evidence, but no such limit appears in our case.

Mr. Warren then says that even if Exhibit 71 was not admissible, which I take to be an admission of at least serious doubt in his mind, if not more. he finds that Exhibit No. 12 certified by Mr. Puga was admissible in evidence which I cannot believe, but I must make investigation as to Mr. Puga's status which I cannot do until I get to Washington.

MR. WARREN'S ARRAIGNMENT OF COUNSEL FOR COMPLAINANT

At pages 58-9 of his report Mr. Warren makes an improper and unfair attack upon the conduct of counsel for complainant, of which self respect compels me to take some notice, as it is aimed at me, individually. He says.

> (2) The document in question had been in his possession since at least December, 1914 (3); he could have ascertained its authenticity or the existence or non-existence of any original; he himself offered it to the defendant's counsel in substitution for a similar document presented by the latter in evidence; he allowed defendant's counsel to introduce it in evidence in February, 1916, without objection; and he allowed both defendant's and plaintiff's witnesses to make use of it in their surveys and calculations and to testify at length in regard to it and its contents, both on direct and cross-examination; he waited until the very close of the evidence before objecting to its admissibility and moving to strike it from the record. Under these circumstances, I find that the plaintiff has no right to object to its consideration by this court.

This arraignment of complainant's counsel, sets out my conduct as of a character indicating professional turpitude and misconduct which deserves disbarment. Mr. Warren sets out in effect, that, knowing of the ground of objection, I wickedly delayed calling attention to it until it was too late for defendant's counsel to

present testimony to meet the objection, which is not true, as the record does not indicate that at the time the objection was made, there was any intention then to close the testimony, nor wuuld it have been closed had either party had any more testimony to offer, and Mr. Warren ignores my statement which appears in the record, that at the time I kindly,—perhaps foolishly—gave defendant's counsel the opportunity to use the copy which I had with some difficulty and expense procured from Mexico, and which I then believed was properly authenticated, but had later become convinced that it was not.

I believe I may properly say that the prolonged examination of the alleged record convinced me it could not be genuine and led me closely to examine its authentication, reaching the conclusion that Mr. Escobar had not really authenticated it and probably never intended to do so.

If I were of the combative temperament generally attributed to my Hiberian ancestors, who are clearly indicated by my family name, I might feel justified in assailing the character, motives and prejudice of Mr. Warren in a disagreeable and unpleasant manner, which would not be proper in this proceeding and in this court, and therefore I leave it to the court to imagine what an angry Irishman might say to such a reckless and prejudiced antagonist, but I am not angry, only sorry, more for Warren than for myself.

Recurring to the record certified by Mr. Puga, which Mr. Warren finds to be admissible, I call attention to the statement at page 55 of the Master's report, that Mr. Puga's certificate was made "under his official seal," and to the fact that there is nothing in the record to justify that assertion. Mr. Puga's certificate in Spanish appears at page 3193 of the record and a translation thereof at page 3195, and there is nothing to indicate the use of any official seal, which is a matter of the imagination of the special master, who cannot properly know anything beyond what is in the record.

TESTIMONY OF OLD WITNESSES.

The Special Master in his report decries the reliability of the testimony of the numerous witnesses who testify for complainant on account of their illiteracy and great age, which had impaired their memory, and in effect he discards practically all of their testimony, although he does concede at page 28 of his report, after having criticized the testimony as inconsistent with the map drafted by Post, that omitting all such testimony "there still remains a large mass af testimony which if it be credited would sustain the location of the river as contended for by the State of New Mexico." He then goes on to indicate his opinion of the unreliability of the witnesses because they were illiterate, were unable to estimate distances with any degree of accuracy, and were old men, some very old. I submit to the court that illiteracy is no indication of defective memory, and indeed it might be urged that illiterate people would have a better memory of such matters as were covered by the testimony of our witnesses than would persons of superior education. As to the effect of great age upon the memory, I believe it is generally well established that old men remember matters of their very early life much better than they do recent happenings. The witness Alejo, to whom reference has been made, appears at page 1971 of the record to have been asked in substance if he did not tell Mr. Amado Chaves and myself, with whom he had had some conversation, "that it all happened so long ago that you could not remember very well," and he answered, "I remember everything better,—what took place at that early time than even what I know now." I believe that several other old witnesses said something to the same effect, but I cannot at this moment refer to them particularly.

As to the inconsistencies in the testimony of the witnesses which Mr. Warren has picked out and dwelt upon as showing the weakness of the case of complainant, I think that I can with confidence appeal to the experience of men of even less age than our old witnesses as to their ability or inability to testify clearly as to such

matters as those about which our witnesses were questioned if put upon the stand without some careful preparation.

A common sense view of the testimony of such witnesses is expressed by the witness Steen at page 2954 of the record, when, under a badgering cross-examination, he said:

> "Well, Mr. Turney, my position would be this,—that the old time Mexicans, who could neither read nor write, could take me out, or take you out and show you objects that existed on the ground as they were many years ago; and yet to put them on the stand before a brilliant lawyer, he is bound to mix them up."

It is possible that some members of the court may have had experiences similar to my own, to which I refer not in the nature of testimony, but as illustrative of my contention as to these old witnesses, who undoubtedly were at times, by rather brutal cross-examination, led into making statements inconsistent one with another, or as Mr. Warren repeatedly insists, inconsistent with the course of the river indicated by Post's map, which was based upon information from these old men. In my early life I was quite familiar as a child with a small river for a number of miles in its course, and I know that I could now go upon the ground and trace the course of that river as I knew it in early life, with some reminiscence about every turn and bend and as to every hill and grove of trees, no matter how much the landscape may have changed, but if I were put upon the witness stand to testify about it, I know that I would be quite unable to give such descriptions or statements of distance as would be satisfactory to any one. I have a quite clear recollection of the road which branched off from the main highway and went down to the river, which it crossed on a bridge, and then turned north coming to a sawmill, but I could not as a witness give any statement which would be satisfactorily descriptive of the turns and bends in that road, or of the distances. I have a very clear memory of the old sawmill and of the dam across the river at the mill and of the mill pond above, and of the place a little above the mill

pond which was fishing ground for perch and eels, but I cannot say how far that was above the mill dam, and while I clearly remember the character of the river below the mill dam, I cannot with any satisfaction even to myself tell how far it was down to the ford through the river, with which I was familiar, nor can I tell how far it was below the bridge to the place where with other boys I went in swimming, nor can I tell how far below that it was to the place where the river went out of the farm which my grandfather occupied, nor how far it was through the land of a neighbor, nor just where there was a long bend in the river, in which we almost always found ducks. I am only surprised that these old men, so much despised by Mr. Warren, could testify as well as they did about the matters as to which they were questioned. Mr. Warren seems to treat almost with contempt the suggestion that the two great religious festivals of the year at El Paso in August and December, to which all good Catholics in the surrounding country would go if possible, especially young people, would have any effect in fixing on their youthful minds details of the river and roads of whch the necessities of travel in those early days really required them to have and retain some knowledge. El Paso del Norte was the principal place in that whole region of country, and one to which the people resorted whenever they could afford to get away from home.

A perusal of the testimony of these witnesses by an impartial person, and Mr. Warren told us that he had read the whole record, and would read it again, would be convincing as to the honesty of the witnesses and their faithful attempt to tell only what they remembered and that they remembered wonderfully. In my original brief in this case I attempted to state the substance of the oral testimony as to the location of the river which was presented by complainant, but that attempt was so unsuccessful as to anything like condensation, that I was compelled to try to make a summary of it beginning at page 757, but I will say that I attempted to reproduce and did reproduce with sufficient thoroughness to make it intelligible, the testimony of these old witnesses. I would gladly read it

to the court, but I know that the court would not permit it because "life is short and time is fleeting."

Any part of that testimony is interesting, but the testimony of Jose de Jesus Garcia, which begins at page 1985 of the record, stands out in my memory as one of the most interesting. He was a clear-headed, strong-minded old man, and among other things which is quite illustrative of the character and training of Mexicans, he stated that he had never learned any English because he had been forbidden to learn English by his father. Counsel for Texas seemed to consider this quite surprising, and in his cross-examination indicated a good deal of contempt for a man who testified that he had held a variety of public offices, and had even been a member of the territorial legislature, although he could not speak English, but it is a fact of which the court may take notice, if at all essential, that a well trained child of parents of Spanish ancestry, remains submissive to his parent's authority as long as they live, no matter how old he himself may be. No decent Mexican would consider it at all out of the way for a father to inflict physical punishment upon his son of mature years, even to the point of beating him with a club, if he did anything which the father considered sinful, and no son would in any degree resist or resent any such punishment.

In a recent article in the International Book Review by Julian Hawthorne about Herman Melville, whom Hawthorne knew for 42 years, from the age of six, and Hawthorne appears to be now over 70 years of age, the writer says:

> "I have discovered in looking back over my life, that the impressions of my childhood were very keen and particular; it is memories more recent that fade."

This court has held that such testimony of living witnesses is better evidence than maps of early explorers of a river which are merely hearsay as to facts within the memory of witnesses. This is shown by a rather lengthy quotation at pages 93-4 of Part 2 of our original brief, from the case of

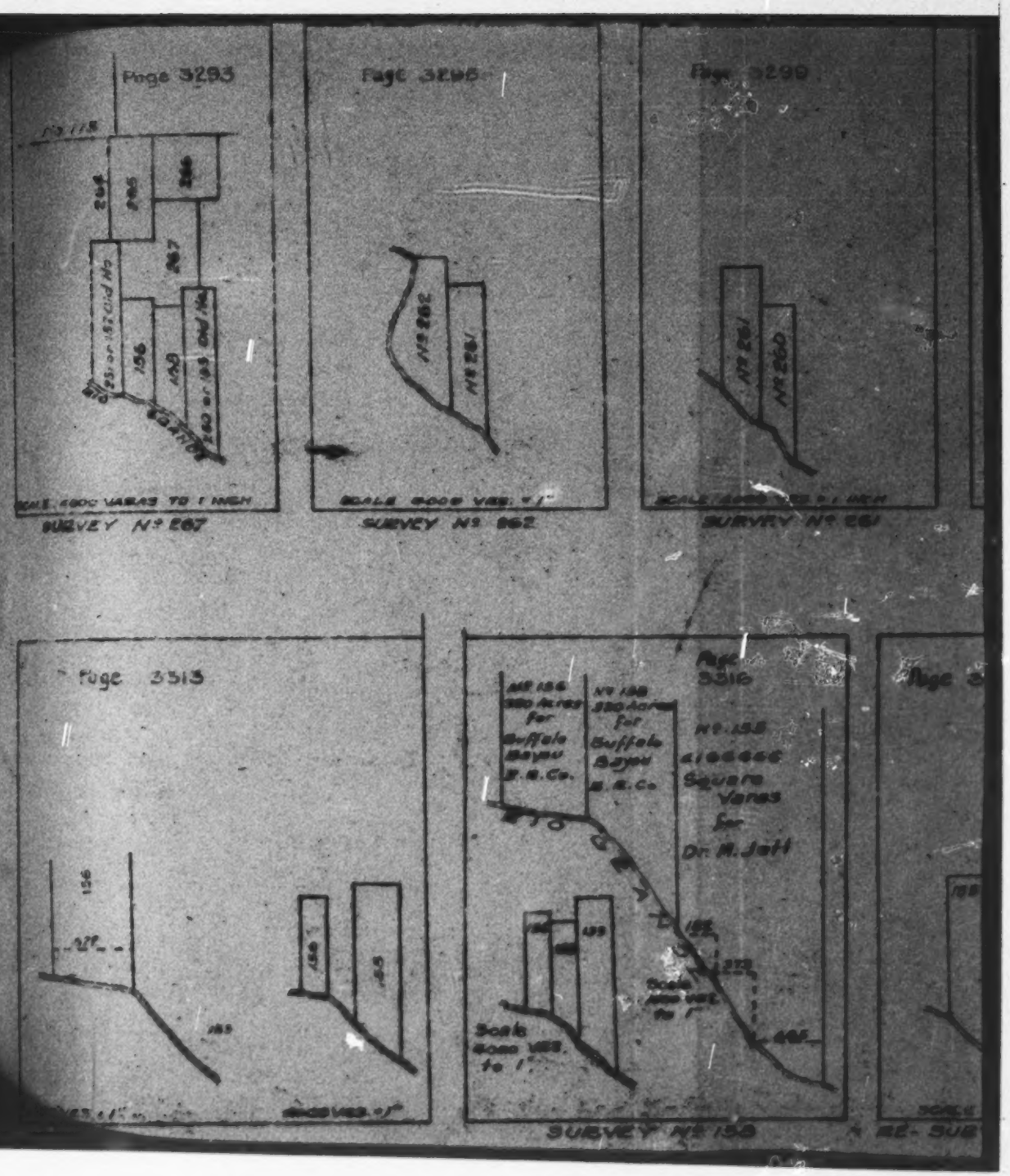
Missouri v. Kentucky, 11 Wallace 295, 403, 405, 410.

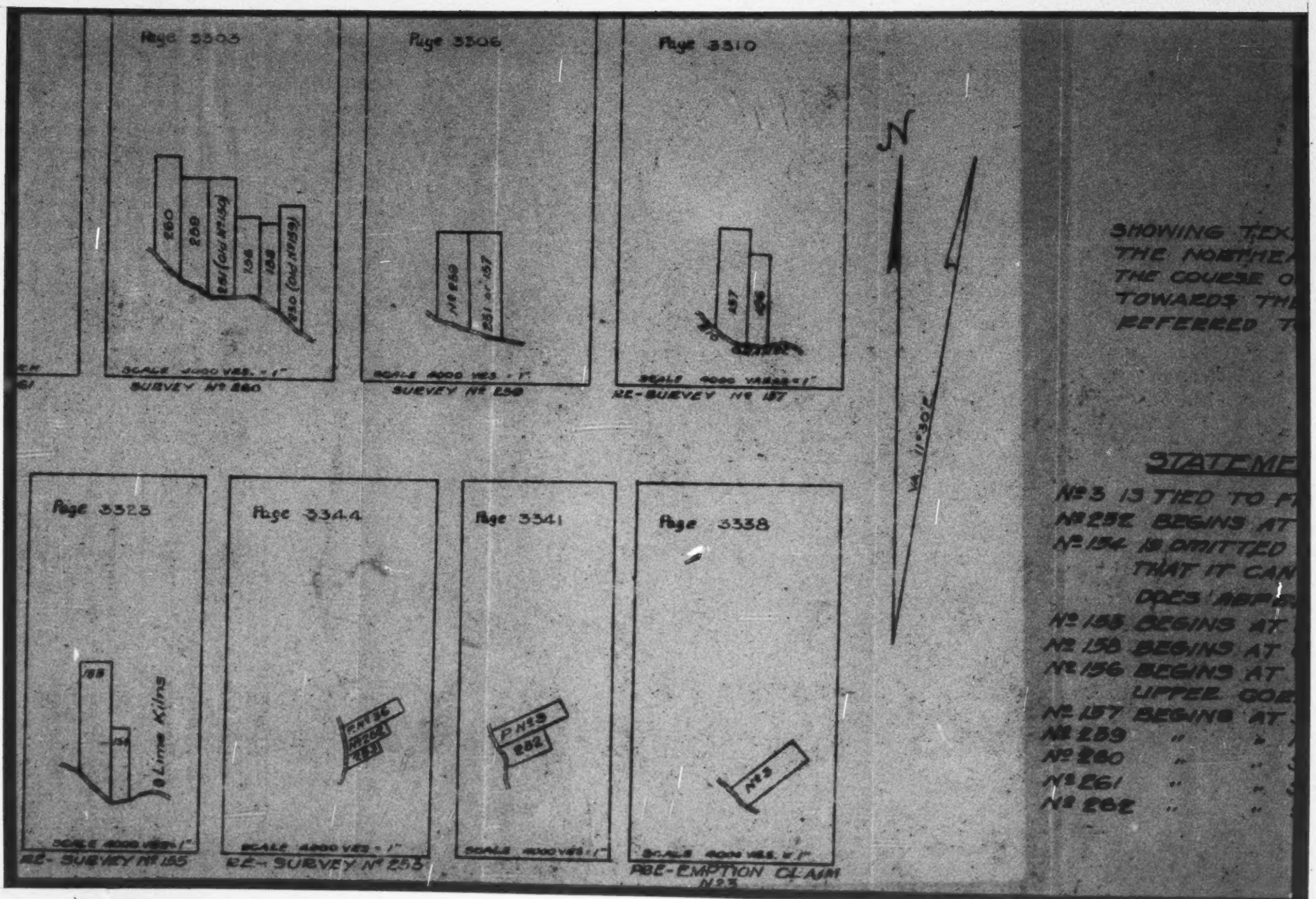
And I call attention to the statement of Thomas B. Catron, who was eminent as a lawyer, at page 3084 of the record, that the Diaz record was "merely hearsay" as being very near to what this Court said in the above cited case.

It should not be forgotten that the defendant did not present any witnesses to contradict our old men, who were not all residents of New Mexico, and it is not reasonable to suppose that we had exhausted the supply of octogenarians who knew the river in early life, and I feel sure that defendant made efforts to find such witnesses favorable to the defense, but without success.

All of which is respectfully submitted,

FRANK W. CLANCY,
Special Counsel for New Mexico.

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PRE-EMPTION CLAIM
N° 3

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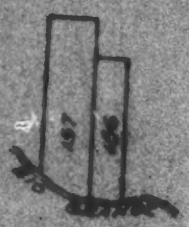

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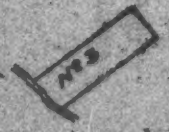

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ABE-EMPTION CLAIM Nº3

PLAT

SHOWING TEXAS SURVEY OF TRACTS OF LAND ON THE NORTHEAST BANK OF THE RIO GRANDE, SHOWING THE COURSE OF THE RIO GRANDE FROM THE FRONTERA TOWARDS THE NORTH & WEST, AS PER THE PAGES REFERRED TO, VOL. 6, OF RECORD, NEW MEXICO VS TEXAS.

STATEMENT OF SURVEY TIES

Nº3 IS TIED TO FRONTERA, WHICH IS WITHIN THE SURVEY.
Nº252 BEGINS AT THE SE CORNER OF Nº3.
Nº 154 IS OMITTED AS IT IS NOT SO CONNECTED WITH ANYTHING THAT IT CAN BE MADE TO FIT. IT IS ON PAGE 3327, BUT DOES NOT APPEAR ON PLAT OF 155. AS PAGE 3328.
Nº 155 BEGINS AT UPPER CORNER OF 154.
Nº 158 BEGINS AT UPPER CORNER OF 155.
Nº 156 BEGINS AT TREE WITH BEARING 1000 VARAS FROM UPPER CORNER OF 155.
Nº 157 BEGINS AT SW CORNER OF 156.
Nº 259 " " NW " " 257.
Nº 260 " " SW " " 259
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Nº 262 " " SW " " 261.

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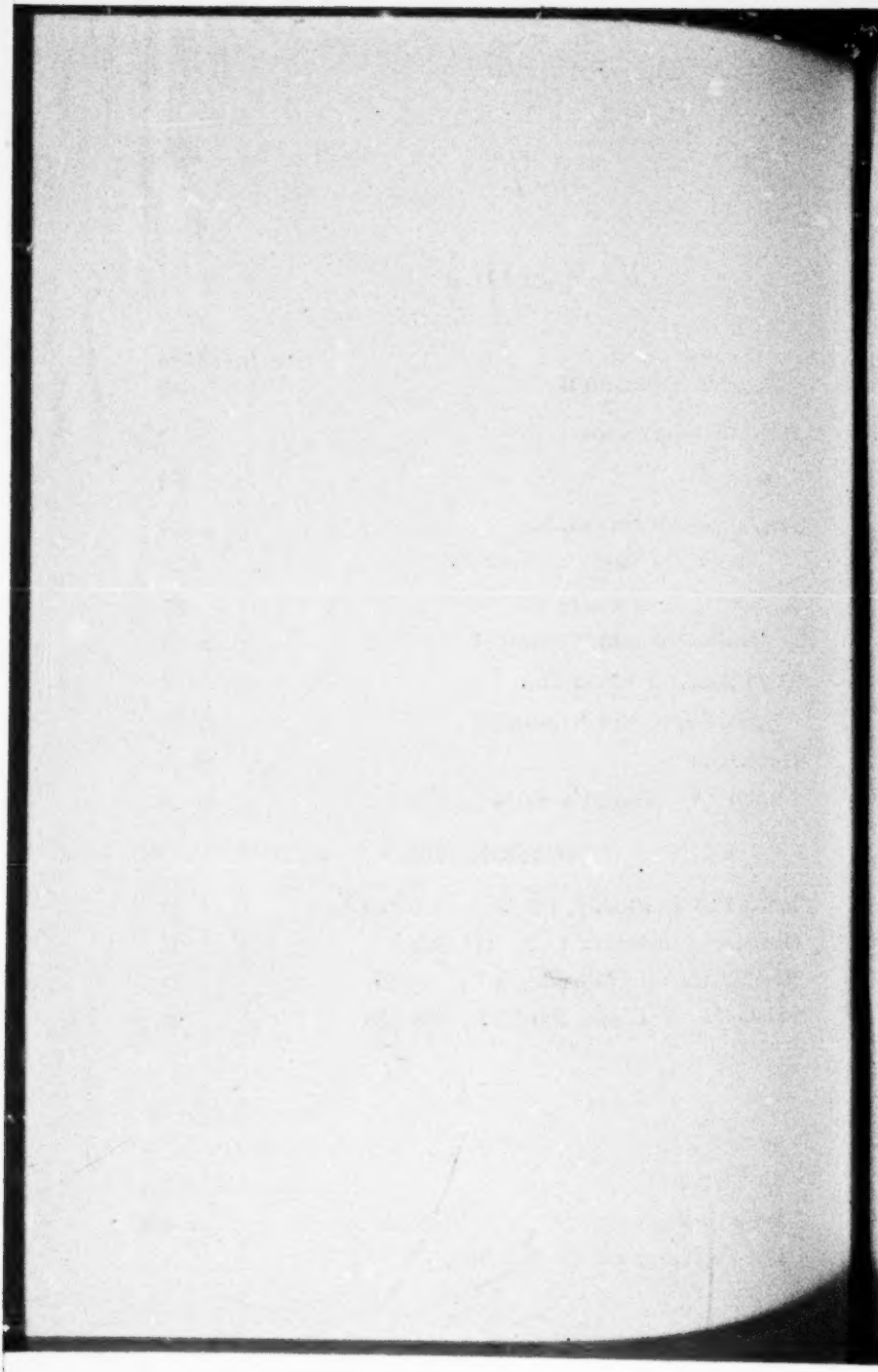

In the Supreme Court of the United States

OCTOBER TERM, 1926

IN EQUITY.
No. 6, Original.

THE STATE OF NEW MEXICO, PLAINTIFF,

vs.

THE STATE OF TEXAS, DEFENDANT.

Exceptions of the State of Texas to the Report of the Special Master.

Comes now the State of Texas, by and through its Attorney General, and files exceptions to the report of the Special Master filed herein on April 21, 1926.

I.

The State of Texas excepts and objects to the findings of the Special Master herein embraced in paragraph VI at pages 78 to 90, inclusive, of his report to this Honorable Court, wherein the Special Master undertakes to determine, first, "WHAT, IF ANY, ACCRETIVE OR AVULSIVE CHANGES OCCURRED PRIOR TO THE DATE OF THE FILING OF THE BILL OF COMPLAINT IN 1913?" and second, "WHETHER THE ORDINARY RULES OF LAW AS TO ACCRETION AND AVULSION IN STATE BOUNDARY CONTROVERSIES ARE APPLICABLE IN THIS PARTICULAR CASE?" (The reasons supporting this exception will be fully set out in the propositions and argument hereinafter made.)

II.

Defendant excepts and objects to the conditional findings of the Special Master herein embraced in paragraphs (b), (c) and (d) of paragraph VII, page 91, of the Master's Report. (The reasons supporting this exception will be fully set out in the propositions, statement and argument hereinafter made.)

The parts of the Master's Report and findings of fact and recommendations to the court to which defendant excepts and objects are set out in full just as they appear in his report, and they are marked Exhibit "A," attached hereto and made a part hereof.

III.

The bases of the foregoing exceptions are:

(a) The conditional findings and conclusions of the Special Master to which the defendant excepts are not on matters made issues by the pleadings, and, therefore, such findings and conclusions are unsupported by the pleadings.

(b) The findings and conclusions of the Special Master to which the defendant excepts are not supported by the law of the cause, and, therefore, are contrary to the law controlling this cause.

(c) The conditional findings and conclusions of the Special Master to which the defendant excepts are not supported by the evidence.

Statement.

In the pleadings of the parties hereto, both the State of New Mexico and the State of Texas recognized that the boundary line between the State of Texas and the State of New Mexico, in so far as same is formed by the Rio Grande

River, is a FIXED BOUNDARY. The Special Master, in making his report and recommendations to the court, recognized this fact, and found that the location of the river as contended for by the State of Texas through its pleadings and pleading map was the boundary line between the two States, and he sustained in full the contentions of the State of Texas as to the location of the Rio Grande River at the time when the boundary line was fixed, namely, the 9th day of September, 1850.

Conditional Findings.

Because the case was reopened and witness Owen was re-examined on the subject of accretion and avulsion, the Special Master herein, while expressing grave doubt as to whether or not accretion and avulsion should be considered in this case, felt that it was his duty to make conditional findings in the event the court should determine that accretion and avulsion were applicable to this case as it was plead. The Special Master reported to the court his findings and recommendations, taking into consideration the doctrine of accretion and avulsion with reference to certain phases of the case, although he stated in his report that there was little evidence in the record of a satisfactory nature (Master's Report, paragraph VI, page 80) from which he could formulate conclusions, and expressed doubt as to the applicability of the doctrine of accretion and avulsion to this case. (Master's Report, paragraph VI, page 79.) The Special Master's findings and recommendations, under this phase of the case, are conditioned upon the court's determining that the doctrine of accretion and avulsion is applicable to the case under the pleadings of the parties. The recommendations of the Master, in so far as

they take into consideration the question of accretion and avulsion, are, at best, only conditional, and it is to this portion of his report that the State of Texas takes exception.

IV.

THE FINDINGS AND CONCLUSIONS OF THE SPECIAL MASTER TO WHICH THE DEFENDANT EXCEPTS ARE NOT ON MATTERS MADE ISSUES BY THE PLEADINGS, AND, THEREFORE, SUCH FINDINGS AND CONCLUSIONS ARE UNSUPPORTED BY THE PLEADINGS.

Statement and Argument in Support of the Defendant's Exceptions Upon the Basis Stated Last Above.

In order that the court may fully understand the position of the State of Texas it is necessary that the issues as drawn by the pleadings of the State of New Mexico and the State of Texas be stated. The attention of the court is called to the fact that avulsion and accretion have no proper place in this case under the pleadings of the parties. That part of the boundary line between the State of New Mexico and the State of Texas which is formed by the Rio Grande River is determined by the location of the river as it ran on the 9th of September, 1850, and not where the river might have been at the time of the institution of this suit, or at any other period of time since 1850. Each of the States has taken this position in the pleadings in this cause, and these pleadings in effect amount to an agreement between the two States that the part of the boundary line between New Mexico and Texas formed by the Rio Grande River is determined by the location of the river as it existed on the 9th of September, 1850, and not where it may have been in 1905, by accretive changes, and not where it may have been in 1913, by accretive changes; but

where the Rio Grande River ran on the 9th day of September, 1850. Supporting this position, the State of Texas, defendant, respectfully calls the attention of the court to the pleadings of the two States in respect to this subject. We quote from the bill of complaint filed by the State of New Mexico and the answer filed by the State of Texas:

The New Mexico Bill of Complaint.

"Your orator further shows that on December 13, 1850, the President of the United States issued a proclamation declaring the said act of Congress of September 9, 1850, respecting the boundaries of Texas, to be in force, said proclamation being issued in pursuance of the direction and authority contained in Section 18 of said act of Congress of September 9, 1850, the material portion of which section is quoted and embodied in said proclamation, a copy of said proclamation being attached hereto and made a part hereof and marked Exhibit 'B.'

"Your orator further shows that, by virtue of the propositions made by Congress in the said Act of September 9, 1850, and by the acceptance thereof by the State of Texas, as set out in said Exhibits 'A' and 'B,' the channel of the Rio del Norte, which is commonly called the Rio Grande, *FROM THE POINT WHERE THE THIRTY-SECOND PARALLEL OF LATITUDE INTERSECTED SAID CHANNEL IN THE YEAR* 1850, *AS THE SAME EXISTED AT THAT TIME, BECAME AND WAS THE WESTERN AND SOUTHWESTERN BOUNDARY OF SAID STATE OF TEXAS FROM SAID PARALLEL TO THE GULF OF MEXICO, AND THAT SAID BOUNDARY HAS REMAINED UNCHANGED TO THE PRESENT TIME.*" (Italics ours.) (Record, Vol. I, pp. 2-3.)

* * * * * * * *

"Your orator further shows that the State of *TEXAS HAS ATTEMPTED TO ASSUME JURISDICTION OVER LAND LYING TO THE WEST OF THE CHANNEL OF THE RIO GRANDE AS IT EXISTED IN THE YEAR* 1850, between the parallels of thirty-two degrees north latitude and thirty-one degrees and forty-seven minutes of north latitude, * * *

"Wherefore, being without remedy except by an original proceeding in this honorable court, where matters of this nature are, under the Constitution of the United States, properly cognizable and relievable, and to the end that the State of Texas, full, true and perfect answer may make to all and singular the matters aforesaid (but not under oath, answer under oath being hereby expressly waived), as fully and particularly as if the same were here repeated and the defendant distinctly interrogated thereto; *AND THAT THE MIDDLE OF THE CHANNEL OF THE RIO GRANDE AS IT EXISTED IN THE YEAR* 1850, *AND AS SHOWN UPON THE MAP HEREINBEFORE REFERRED TO WHICH IS ATTACHED HERETO AND MARKED EXHIBIT 'C,' BE BY THIS HONORABLE COURT DECREED TO BE THE TRUE BOUNDARY LINE BETWEEN THE STATE OF NEW MEXICO AND THE STATE OF TEXAS, BETWEEN THE PARALLEL OF THIRTY-TWO DEGREES OF NORTH LATITUDE AND THE PARALLEL OF THIRTY-ONE DEGREES AND FORTY-SEVEN MINUTES OF NORTH LATITUDE,* and that your orator may have such further or other relief as the nature of the case may require and to the court shall seem meet." (Italics ours.) (Record, Vol. I, pp. 4-5.)

Exhibit "A," attached to complainant's bill of complaint, is a part of the Act of Congress of 1850, from which is quoted the following:

"Section 1. Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the following propositions shall be, and the same hereby are offered to the State of Texas, which, when agreed to by the said State, in an act passed by the general assembly, shall be binding and obligatory upon the United States and upon the said State of Texas; provided, the said agreement by the said general assembly shall be given on or before the first day of December, eighteen hundred and fifty.

"First. The State of Texas will agree that her boundary on the north shall commence at the point at which the meridian of one hundred degrees west from Greenwich is intersected by the parallel of thirty-six degrees, thirty minutes north latitude, and shall run from said point due west to the meridian of one hundred and three degrees west from Greenwich; thence her boundary shall run due south to the thirty-second degree of north latitude; thence on the said parallel of thirty-two degrees of north latitude to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico." (Record, Vol. I, p. 5.)

Exhibit "B," attached to complainant's bill of complaint, is a proclamation by the President of the United States of America, declaring the Act of 1850, respecting the boundaries of Texas, to be in force, from which is quoted the following:

"Whereas, by an act of the Congress of the United States of the ninth of September, one thousand eight hundred and fifty, entitled 'An Act proposing to the State of Texas the establishment of her northern and western boundaries, the relinquishment by the said State of all territory claimed by her exterior to said boundaries, and of all her claims upon the United

States, and to establish a territorial government for New Mexico,' it was provided, that the following propositions should be, and the same were thereby offered to the State of Texas, which, when agreed to by the said State, in an act passed by the general assembly, should be binding and obligatory upon the United States, and upon the State of Texas; provided, the said agreement by the said general assembly should be given on or before the first day of December, eighteen hundred and fifty, namely:

"'First. The State of Texas will agree that her boundary on the north shall commence at the point at which the meridian of one hundred degrees west from Greenwich is intersected by the parallel of thirty-six degrees thirty minutes north latitude, and shall run from said point due west to the meridian of one hundred and three degrees west from Greenwich; thence her boundary shall run due south to the thirty-second degree of north latitude; thence on the said parallel of thirty-two degrees of north latitude to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico.' (Record, Vol. I, p. 7.)

* * * * * * * *

"And whereas the Legislature of the State of Texas, by an act approved the twenty-fifth of November last, entitled 'An Act accepting the propositions made by the United States to the State of Texas, in an act of the Congress of the United States approved the ninth day of September, A. D. one thousand eight hundred and fifty, and entitled "An Act proposing to the State of Texas the establishment of her northern and western boundaries, the relinquishment by the said State of all territory claimed by her exterior to said boundaries, and of all her claims upon the United States, and to establish a territorial government for New Mexico,"—of which act a copy authenticated under

the seal of the State has been furnished to the President—enacts "that the State of Texas hereby agrees to and accepts said propositions, and it is hereby declared that the said State shall be bound by the terms thereof, according to their true import and meaning."'

"Now, therefore, I Millard Fillmore, President of the United States of America, do hereby declare and proclaim that the said act of the Congress of the United States of the ninth of September last, is in full force and operation." (Record, Vol. I, pp. 8-9.)

Exhibit "D," attached to complainant's bill of complaint, is an extract from the Constitution of the State of New Mexico, from which is quoted the following:

"Article 1.

"Names and Boundaries.

"The name of this State is New Mexico, and its boundaries are as follows:

"Beginning at the point where the thirty-seventh parallel of north latitude intersects the one hundred and third meridian west from Greenwich; thence along said one hundred and third meridian to the thirty-second parallel of north latitude; *THENCE ALONG SAID THIRTY-SECOND PARALLEL TO THE RIO GRANDE, ALSO KNOWN AS THE RIO BRAVO DEL NORTE, AS IT EXISTED ON THE NINTH DAY OF SEPTEMBER, ONE THOUSAND EIGHT HUNDRED AND FIFTY; THENCE, FOLLOWING THE MAIN CHANNEL OF SAID RIVER, AS IT EXISTED ON THE NINTH DAY OF SEPTEMBER, ONE THOUSAND EIGHT HUNDRED AND FIFTY, TO THE PARALLEL OF THIRTY-ONE DEGREES, FORTY-SEVEN MINUTES NORTH LATITUDE;* thence west one hundred miles to a

point; thence south to the parallel of thirty-one degrees twenty minutes north latitude; thence along said parallel of thirty-one degrees twenty minutes, to the thirty-second meridian of longitude west from Washington; thence along said thirty-second meridian to the thirty-seventh parallel of north latitude; thence along said thirty-seventh parallel to the point of beginning." (Italics ours.) (Record, Vol. I, p. 10.)

The State of Texas filed its answer to complainant's bill of complaint, and from the answer of the State of Texas the following quotations are taken:

Texas' Answer.

"*DEFENDANT ADMITS THAT THE BOUNDARY OF THE STATE OF TEXAS* on the north commences at the point at which the meridian of 100° west from Greenwich is intersected by the parallel of 36° 30' north latitude, and runs from said point due west to the meridian of 103° west from Greenwich; thence the boundary runs due south to the 32° of north latitude; *THENCE ON SAID PARALLEL OF 32° NORTH LATITUDE TO THE RIO BRAVO DEL NORTE (RIO GRANDE) AS IT IN THE YEAR 1850 EXISTED, AND THENCE WITH THE CHANNEL OF SAID RIVER TO THE NORTH OF MEXICO.*" (Italics ours.) (Record, Vol. I, p. 16.)

* * * * * * * *

"Defendant denies that any of said grants or conveyances by it made of any of its lands, as aforesaid, conflict with any just rights and claims of any owners of lands holding under grants made by the Republic of Mexico and confirmed by the authorities of the government of the United States; but defendant asserts that owners of pretended grants from the Republic of Mexico and others to this defendant unknown are en-

deavoring now, through plaintiff and in this action and as shown by plaintiff's Exhibit 'C,' so to place the Rio Grande in 1850 as that all or most all of the valley lands between said parallels of 31° 47′ and 32° north latitude will fall on the west side of the Rio Grande as it existed in 1850 without justification in fact but in opposition to the line run by said John H. Clark, as aforesaid, and as resurveyed and re-established under the said resolution of 1911, and also in direct opposition to the known location and course of said Rio Grande between said two parallels in the year 1850.

"Defendant says that all of the territory lying between parallels 31° 47′ north latitude and 32° north latitude, *AND LYING EAST OF THE RIO GRANDE AS SAME EXISTED AT THE DATE OF THE ADOPTION OF THE TREATY OF GUADALUPE HIDALGO AND IN THE YEAR 1850, AND AT THE DATE WHEN THE LINE WAS RUN BETWEEN THE REPUBLIC OF MEXICO ON THE SOUTH AND WEST AND THE UNITED STATES OF AMERICA ON THE NORTH AND EAST, AND FROM THE MOUTH OF THE RIO GRANDE UP THE CHANNEL THEREOF TO THE THIRTY-SECOND PARALLEL OF NORTH LATITUDE, AND AT THE DATE OF THE ADOPTION OF THE GADSDEN TREATY, BECAME AND WAS AND AT ALL TIMES SINCE HAS BEEN A PART OF THE TERRITORY OF THIS DEFENDANT.*

"That, as stated, said river as it existed at said times and on said dates, is not correctly shown by Exhibit 'C' of plaintiff's bill herein, but the delineation of said river in said Exhibit 'C' nowhere between said parallels correctly places said river, and this *DEFENDANT NOW STATES THAT THE CORRECT LOCATION OF SAID RIVER AT THE TIME OF THE TREATY OF GUADALUPE HIDALGO,*

AND IN THE YEAR 1850, *AND AT THE TIME THE LINE BETWEEN THE REPUBLIC OF MEXICO AND THE UNITED STATES OF AMERICA WAS BY COMMISSION DULY APPOINTED UNDER SAID TREATY OF GUADALUPE HIDALGO, ACTUALLY RUN AND SURVEYED IN THE YEARS* 1852 *AND* 1853 *AND AT THE DATE OF THE ADOPTION OF THE GADSDEN TREATY, IS CORRECTLY SHOWN AND DELINEATED UPON DEFENDANT'S EXHIBIT 'A' HERETO ATTACHED* and in all things made a part hereof, and the marks, calls and points in said Exhibit 'A' are correctly placed, including old roadways as they formerly existed and the line of railway as same now exists.

"Wherefore, having answered fully all the matters in plaintiff's bill set forth, defendant prays this honorable court that the prayer in plaintiff's bill be not granted, but that the court decree that the boundary line between the State of Texas and the State of New Mexico, on that part of same between parallels 31° 47′ and 32° north latitude, *BE DECLARED TO BE THE MIDDLE OF THE CHANNEL OF THE RIO GRANDE AS IT ACTUALLY EXISTED IN THE YEAR* 1850 and as the same is shown upon the map hereinafter referred to and which is attached hereto, marked Exhibit 'A,' or said boundary line as between said parallels, be decreed to exist in the middle channel of the Rio Grande as same actually existed in the year 1850, or as found by the joint commission of the United States of America and the Republic of Mexico as located, platted and delineated by said joint commission in the years 1852 and 1853; and that this defendant have such other and further relief as may be found necessary in order correctly to establish and locate said boundary line between plaintiff and defendant at the point in question, and as to the court

shall seem meet and proper, and that the defendant have and recover its reasonable costs." (Italics ours.) (Record, Vol. I, pp. 18-19.)

The State of Texas filed with its original answer a cross bill of complaint against the State of New Mexico, from which the following is quoted:

"* * * *BE DECLARED TO BE THE MIDDLE OF THE CHANNEL OF THE RIO GRANDE AS IT ACTUALLY EXISTED IN THE YEAR* 1850 and as the same is shown upon the map hereinbefore referred to and which is attached hereto, marked Exhibit 'A,' or said boundary line as between said parallels, *BE DECREED TO EXIST IN THE MIDDLE CHANNEL OF THE RIO GRANDE AS SAME ACTUALLY EXISTED IN THE YEAR* 1850, or as found by the joint commission of the United States of America and the Republic of Mexico as located, platted and delineated by said joint commission in the years 1852 and 1853; and that this defendant have such other and further relief as may be found necessary in order correctly to establish and locate said boundary line between plaintiff and defendant at the point in question, and as to the court shall seem meet and proper, and that the defendant have and recover its reasonable costs." (Italics ours.) (Record, Vol. I, p. 20.)

Complainant's Answer to Cross Bill of the Defendant.

"The said complainant, the State of New Mexico, hereby waives the issuance and service of any process to require it to appear and answer the allegations in said cross bill of complaint contained; and now, and at all times hereafter, saving and reserving to itself all and all manner of benefit and advantage of exception to the many errors, uncertainties and imperfections in the said cross bill of complaint contained, for answer

thereunto, or unto so much thereof as it is advised it is material or necessary for it to answer, answering says:

"THAT IT ADMITS THAT THE TRUE BOUNDARY LINE BETWEEN THE STATE OF TEXAS AND THE STATE OF NEW MEXICO BETWEEN THE PARALLEL OF 31° 47' *OF NORTH LATITUDE AND THE PARALLEL OF* 32° *OF NORTH LATITUDE AS THE SAME WAS FIXED BY THE ACT OF CONGRESS OF SEPTEMBER* 9, 1850, *IS THE CHANNEL OF THE RIO GRANDE BETWEEN SAID PARALLELS OF LATITUDE, AS IT EXISTED IN THE YEAR* 1850. • • •

• • • • • • • • •

"THIS COMPLAINANT admits that the defendant has made grants of lands, conveyances and patents to lands lying eastward of the Rio Grande between said parallels of thirty-one degrees forty-seven minutes and thirty-two degrees north latitude, and *ADMITS THAT DEFENDANT AND THE LANDOWNERS AND CLAIMANTS UNDER IT ARE THE ONLY PERSONS ENTITLED TO HOLD SAID LANDS OR TO HAVE POSSESSION OF THE SAME OR ANY PART OF THE SAME, ACTUALLY LYING TO THE EAST OF THE RIO GRANDE BETWEEN SAID PARALLELS AS SAID RIVER EXISTED IN* 1850; but this complainant avers that defendant has not limited its attempt to assume jurisdiction over such lands to those which lie to the east of the channel of the Rio Grande as it existed in the year 1850, but has attempted to assume such jurisdiction over lands lying to the west of said river, as complainant has heretofore alleged in its bill of complaint in this cause.

"This complainant denies that owners of pretended grants from the Republic of Mexico, or any other persons, are endeavoring through plaintiff in this

action, or as shown by complainant's exhibit 'C,' *SO TO PLACE THE RIO GRANDE IN* 1850 as that all or almost all of the valley lands between said parallels of thirty-one degrees forty-seven minutes and thirty-two degrees of north latitude, will fall on the *WEST SIDE OF THE RIO GRANDE AS IT EXISTED IN* 1850, without justification in fact, or in opposition to any line run by said John H. Clark, or as resurveyed and re-established under the said resolution of Congress of February 16, 1911, or in direct opposition to the location and course of *SAID RIO GRANDE BETWEEN SAID PARALLELS IN THE YEAR* 1850; and *COMPLAINANT AVERS THAT THE GREATER PART OF THE VALLEY LANDS BETWEEN SAID TWO PARALLELS ARE ACTUALLY TO THE WEST OF THE RIO GRANDE AS IT EXISTED IN THE YEAR* 1850, as shown by its said exhibit 'C,' and that no line was ever run by the said John H. Clark to show the west boundary of defendant along the Rio Grande as it existed in 1850 between said parallels of latitude, and that said line to show the boundary between complainant and defendant between said parallels of latitude was not surveyed or established under the resolution of Congress of February 16, 1911, beyond the fact that the said commission erroneously relocated Clark's monument number one more than three thousand feet west of the true location of that monument as originally established by said John H. Clark." (Italics ours.) (Record, Vol. I, pp. 34-36.)

This suit was instituted as an original proceeding before the Supreme Court of the United States of America by the filing of complainant's bill of complaint on the 31st of January, 1913. The State of Texas, defendant, filed its answer and cross bill to the bill of complaint of the State

of New Mexico on the 21st of April, 1913. The State of New Mexico, complainant, filed its answer to the cross bill of the defendant, the State of Texas, nunc pro tunc as of May 6, 1913, on the 19th of May, 1919. There have been no amendments filed, and this case is submitted to the court upon the original pleadings of the parties, from which the foregoing quotations have been taken.

It will be seen from the pleadings quoted, which are the pleadings upon which the case was tried, that the full contention of the State of New Mexico in its bill of complaint was that "FROM THE POINT WHERE THE THIRTY-SECOND PARALLEL OF LATITUDE INTERSECTED SAID CHANNEL IN THE YEAR 1850, AND AS THE SAME EXISTED AT THAT TIME, BECAME AND WAS THE WESTERN AND SOUTHWESTERN BOUNDARY OF SAID STATE OF TEXAS FROM SAID PARALLEL TO THE GULF OF MEXICO: AND THAT SAID BOUNDARY HAS REMAINED UNCHANGED TO THE PRESENT TIME." Each of the exhibits attached to the pleading of the State of New Mexico was in support of this allegation. The prayer of the State of New Mexico, complainant, is in part, *"That the middle of the channel of the Rio Grande as it existed in the year* 1850, *and as shown upon the map hereinbefore referred to which is attached hereto and marked Exhibit 'C,' be by this Honorable Court decreed to be the true boundary line between the State of New Mexico and the State of Texas, between the parallel of thirty-two degrees of north latitude and the parallel of thirty-one degrees and forty-seven minutes of north latitude.* * * *"*

The State of Texas, defendant, in its answer admitted

that the boundary line between Texas and New Mexico, in so far as it was formed by the Rio Grande River, was that river *"as it in the year* 1850 *existed,"* and prayed that the boundary line between the State of Texas and the State of New Mexico, in so far as the same is formed by the Rio Grande River, *"be declared to be the middle of the channel of the Rio Grande as it actually existed in the year* 1850."

The complainant, in its answer to the cross-bill of the defendant, which was filed nunc pro tunc as of May 6, 1913, on May 19, 1919, *"admits that defendant and the landowners and claimants under it are the only persons entitled to hold said lands or to have possession of the same or any part of the same, actually lying to the east of the Rio Grande between said parallels as said river existed in* 1850"; and further admits in said answer to said cross-bill *"that the true boundary line between the State of Texas and the State of New Mexico, between the parallels of* 31° *and* 47′ *north latitude and* 32° *north latitude, as the same was fixed by the Act of Congress of September* 9, 1850, *is the channel of the Rio Grande between said parallels of latitude, as it existed in the year* 1850."

The complainant attached to its petition a pleading map, being Exhibit "C" (Record, Vol. I, p. 9), upon which map was delineated the Rio Grande River, not as it existed at the date of the filing of the bill of complaint, but as New Mexico contended it was located on the 9th day of September, 1850. The State of Texas attached to its answer a map designated as Exhibit "A" (Record, Vol. I, p. 20), upon which was delineated the location of the Rio Grande

River according to the contention of Texas, not as it existed at the time of the filing of the suit, but as it existed on the 9th day of September, 1850. Upon the issue thus drawn, i. e., the location of the Rio Grande River between said parallels, as such river existed on September 9, 1850, the State of New Mexico and the State of Texas exhausted every known avenue for testimony to establish the theory and contention of each, and more than three thousand pages of testimony were taken upon the issues thus drawn, and the case was duly closed.

An examination of complainant's Exhibit "C," which was its pleading map, will show that by that map New Mexico sought to locate the Rio Grande River as it existed in 1850, and that the effort of New Mexico was to place the river, as it existed in 1850, along the extreme eastern edge of the valley. The most cursory reading of the testimony introduced by New Mexico will show that the purpose of this testimony was to prove that the river was flowing in 1850 along the eastern edge of the valley, and that its pleading map correctly showed the course of the river as it existed in 1850. It is further disclosed by the testimony introduced by New Mexico that they sought to place the river in a channel which, at the time of the hearing, for the greater part of the distance, was not occupied by any river. No effort was made to show when or why the river left the channel which New Mexico contended it occupied in 1850. Neither was any effort made by New Mexico to claim land by accretion, or to concede to Texas the acquisition of any land by accretion, though, admittedly, the river at the time of the trial occupied a channel far to the west of that contended for by the pleading map and testimony offered by

New Mexico. This conclusively shows that New Mexico was pleading the case and trying it upon the theory that the boundary line was fixed by the course of the river as it existed in 1850, and that that boundary line had not changed since, but was a fixed and unchanging line. And throughout the trial of the case, New Mexico gave no attention to any other possible bed of the river as fixing the boundary line between the two States.

Neither party contended for any land as acquired by accretion, but the testimony was offered in support of the pleadings, and the object of each party was to locate the course of the river as it ran on the 9th day of September, 1850. The State of Texas sought to prove that the river was located in 1850 as shown on its pleading map, and the State of New Mexico endeavored to prove that in 1850 the Rio Grande River ran as described and shown by the pleading map attached to the pleading of New Mexico, and that such river was the boundary. Considerable testimony was heard to the effect that the Rio Grande River in this area flows through an avulsive river bed, but this testimony was in explanation of the many old channels and washes found in this section; but no testimony was introduced or considered touching or bearing upon the question of accretion. The question of accretion was not raised in this case until the October term, 1923, by the amicus curiae, L. M. Crawford, and which matter will be hereinafter discussed.

The findings, conclusions and recommendations of the Master with respect to the matter herein objected to are at best only conditional findings, conclusions and recommendations upon his part. The defendant understands that they are conditional upon the question as to whether the ordinary rules of law as to accretion and avulsion in State

boundary controversies are applicable to this particular case.

The State of Texas respectfully urges that his findings, conclusions and recommendations, conditional though they are, are in error, and should not be either sustained or followed by the court, because they are based upon matters, and determine the case in this respect upon questions, which are not made issues in the pleadings. This is an original suit before this Honorable Court, and certainly those rules of law ordinarily obtaining in other litigation will apply here. No citation of authority is needed to sustain the statement before this court that the findings of the court and the judgment of the court must be upon the matters concerning which the parties joined issue in their pleadings. In this case we have the State of New Mexico suing for the location of a boundary line and praying that that boundary line be located by the Rio Grande River as it existed on the 9th of September, 1850; and to this bill of complaint the State of Texas answers, admitting that the course of the Rio Grande River as it ran in 1850 is the true boundary line between the State of New Mexico and the State of Texas, in so far as that boundary line is formed by the river. There is no issue made by the pleadings on the question of what was the boundary line, and there is no issue made as to whether that boundary was constantly changing by erosion and accretion. Each party adopts the view that the river as it ran in 1850 was then, has at all times been, and is now the boundary between the two jurisdictions, in so far as that boundary line is formed by the river. The issue between the State of Texas and the State of New Mexico has at all times in this litigation been, and now is, the location of the river as it flowed on September

9, 1850, as a fixed boundary line. It was upon this issue that the testimony was offered, and the findings of the Special Master should be limited to a location of the river of 1850 from the evidence heard upon the trial of this case. Any other finding would be based upon matters not made issues by the pleadings, and therefore not involved in this suit.

The defendant, therefore, respectfully submits to the court that the question of accretion and avulsion has no proper place in this case, but that under the pleadings the court should enter judgment finding the location of the river as it existed on the 9th of September, 1850, and decree that line to be the boundary between the State of Texas and the State of New Mexico. Such a finding disposes of the issues between the litigants and disposes of all contested matters raised by the pleadings in this case.

V.

THE FINDINGS AND CONCLUSIONS OF THE SPECIAL MASTER TO WHICH THE DEFENDANT EXCEPTS ARE NOT SUPPORTED BY THE LAW OF THE CAUSE, AND, THEREFORE, ARE CONTRARY TO THE LAW CONTROLLING THIS CAUSE.

Statement and Argument Under the Basis Stated Last Above.

The act of Congress establishing the Territory of New Mexico, submitted a proposition to Texas, which was accepted by Texas, and in part provided as follows:

> "First. The State of Texas will agree that her boundary on the north shall commence at the point at which the meridian of one hundred degrees west from Greenwich is intersected by the parallel of thirty-

six degrees thirty minutes north latitude, and shall run from said point due west to the meridian of one hundred and three degrees west from Greenwich; thence her boundary shall run due south to the thirty-second degree of north latitude; thence on the said parallel of thirty-two degrees of north latitude to the Rio Bravo del Norte, and thence with the channel of said river to the Gulf of Mexico." (Record, Vol. I, p. 5.)

This was the act approved on September 9, 1850.

The acceptance of Texas is evidenced by the proclamation of the President found in the Record, Vol. I, pages 7-8, from which is quoted the following:

"And whereas the Legislature of the State of Texas, by an act approved the twenty-fifth of November last, entitled 'An Act accepting the propositions made by the United States to the State of Texas, in an act of the Congress of the United States approved the ninth day of September, A. D. one thousand eight hundred and fifty, and entitled "An Act proposing to the State of Texas the establishment of her northern and western boundaries the relinquishing by the said State of all territory claimed by her exterior to said boundaries, and of all her claims upon the United States, and to establish a territorial government for New Mexico,"—of which act a copy authenticated under the seal of the State has been furnished to the President—enacts 'that the State of Texas hereby agrees to and accepts said propositions, and it is hereby declared that the said State shall be bound by the terms thereof, according to their true import and meaning.'"

The Constitution of New Mexico declared in Article I the boundaries of the State, which article reads as follows:

"Article I.

"The name of this State is New Mexico, and its boundaries are as follows:

"Beginning at the point where the thirty-seventh parallel of north latitude intersects the one hundred and third meridian west from Greenwich; thence along said one hundred and third meridian to the thirty-second parallel of north latitude; *thence along said thirty-second parallel to the Rio Grande, also known as the Rio Bravo del Norte, as it existed on the ninth day of September, one thousand eight hundred and fifty; thence, following the main channel of said river, as it existed on the ninth day of September, one thousand eight hundred and fifty, to the parallel of thirty-one degrees, forty-seven minutes north latitude;* thence west one hundred miles to a point; thence south to the parallel of thirty-one degrees, twenty minutes north latitude; thence along said parallel of thirty-one degrees, twenty minutes, to the thirty-second meridian of longitude west from Washington; thence along said thirty-second meridian to the thirty-seventh parallel of north latitude; thence along said thirty-seventh parallel to the point of beginning." (Record, Vol. I, p. 10.)

At the time of the passage of the Act of 1850, all land in that area now comprising the State of New Mexico was property of the United States of America and subject to the control of Congress; whereas, all land in Texas was the property of that State, and persons claiming under it, and subject to the control of the Legislature of the State of Texas. The Congress made a proposal to Texas, which, among other things, fixed the boundary line between Texas and New Mexico. This proposal was ac-

cepted by Texas, as is shown by the Act of Congress and the proclamation of the President found in the Record and quoted from above. By agreement of the two jurisdictions the boundary line between Texas and the Territory of New Mexico was established. And this agreement fixed the boundary line between the parallel of 31° and 47′ north latitude and the parallel of 32° north latitude, as the channel of the Rio Grande River. This agreement was reached in 1850. Each jurisdiction had the power to contract with respect to this subject, and the offer or proposition of the Congress of the United States to Texas, and the acceptance by Texas of the offer or proposition so made, must rest upon the plane of a contract, and be accorded all the respect and dignity that contracts between the law-making agency of the United States of America and the law-making agency of the State of Texas are entitled to receive. It is therefore by contract between this Republic and the State of Texas, which had so recently been a Republic among the nations of the earth, with power to declare war, conclude peace and otherwise exercise the powers and prerogatives of a national existence, that this boundary line was fixed. The Congress of the United States recognized the solemnity of this contract, and by joint resolution of August 21, 1911 (37 Statutes at Large, 39), said that New Mexico should only be admitted into the sisterhood of states subject to the terms and conditions of a joint resolution reaffirming the boundary between Texas and the Territory of New Mexico.

The people of New Mexico, having only such power to adopt statehood as was allowed to them in the enabling act of Congress, adopted a constitution; and in Article I

thereof stated the boundaries of the State and provided therein that the boundary line between New Mexico and Texas, in so far as that boundary line is formed by the Rio Grande River, should be:

> "thence along said thirty-second parallel to the Rio Grande River, also known as the Rio Bravo del Norte, *as it existed on the 9th day of September, one thousand eight hundred and fifty;* thence following the main channel of said river, *as it existed on the 9th day of September, one thousand eight hundred and fifty,* to the parallel of thirty-one degrees and forty-seven minutes north latitude."

This Constitution met the approval of the Congress of the United States, and New Mexico became a State with her boundary fixed and the territorial limits of her jurisdiction determined by the terms of the above provision of the Constitution. Thus, all parties at interest had agreed upon the boundary line. Texas, surrendering other rights, at the proposal of Congress, consented in 1850 that the Rio Grande River should be its western boundary between the parallel of 31° and 47′ north latitude and the parallel of 32° north latitude. The United States agreed to this boundary line in 1850. In 1911, New Mexico becoming a State, by and with the consent of Congress, agreed that the Rio Grande "as it existed on the 9th day of September, one thousand eight hundred and fifty," should be the boundary line between Texas and New Mexico, in so far as that line was formed by the Rio Grande River. Two years later, when this suit was brought, the Attorney General of the State of New Mexico alleged that the line of 1850 was the boundary and had "remained unchanged to the present time" and prayed

that the Rio Grande River, as it existed in the year 1850, be declared the boundary line in that area between Texas and New Mexico, and such is the condition of the pleadings in this cause unto this day.

Now it is submitted to the court that New Mexico can neither in law nor in equity claim any greater area than that embraced in the boundaries set out in the Constitution of that State, and it is submitted that the agreement reached between Texas and the United States respecting this boundary line before New Mexico became a State, together with the Constitution of New Mexico declaring the boundaries of that State, being in accord with the agreement between Texas and the United States, constitutes the law of this case and is conclusive of all questions involved in this litigation, except the one resting upon proof of the fact as to the location of the Rio Grande River on the 9th day of September, 1850, between the two parallels of north latitude.

The conditional findings of the Special Master in this case, if adopted by this court, would amount to a nullification of the Acts of Congress and the Acts of the Legislature of Texas, and would write into the meaning of the Constitution of New Mexico something more than the express and specific language of that document means. And the defendant respectfully urges that this series of acts by the three jurisdictions, i. e., the United States of America, Texas, and the Constitution adopted by the people of New Mexico, concludes all questions involved, except the one of fact, which is the issue of fact upon which each party offered evidence in the trial of this case, to-wit, the location of the river as it flowed on September 9, 1850. The Constitution of New Mexico is

the supreme law of that State, subject only to the Constitution and laws of the United States of America, and New Mexico will not be heard to contend for a larger area than that described in the boundaries set out in the Constitution of that State.

Texas has patented land, and its patentees have entered upon said lands and made valuable improvements thereon, with faith in the fact that the river, as it existed in 1850, constituted the boundary line. The United States has recognized this line. New Mexico has admitted in its pleadings that Texas and its patentees are entitled to all land east of the river, as it existed in 1850, and has otherwise recognized the line.

> "* * * it was held that governments are bound by the practical line that has been established as their boundary, although not precisely a true one; and that as the United States before either of the States had been admitted into the Union and after Missouri had been admitted but while Iowa still remained a Territory, had recognized and adopted the line of a certain survey as the 'Indian boundary line' and was committed to that line as the boundary of Missouri, Iowa when admitted was bound by the recognition and adoption of that line by the United States, her predecessor, and could not be heard to disavow it as the boundary." (State of New Mexico vs. State of Colorado, 267 U. S., 40.)
>
> Missouri vs. Iowa, 17 U. S., 337, 345.
>
> Indiana vs. Kentucky, 136 U. S., 479, 508-11.

If it be conceded that the doctrine of accretion and avulsion applied at the time the line was originally adopted in 1850, under the above agreements, the series of acts on the part of the United States, New Mexico and

Texas, and the position taken by New Mexico in the pleadings and proof in this case, constitute a continuous, uninterrupted, practical construction of the terms of the contract over a period of 74 years, which now prohibits an application of the doctrine of avulsion and accretion in determining the boundary line in this area.

VI.

THE FINDINGS AND CONCLUSIONS OF THE SPECIAL MASTER TO WHICH THE DEFENDANT EXCEPTS ARE NOT SUPPORTED BY THE EVIDENCE.

Statement and Argument Under the Basis Stated Last Above.

The cause was tried on the theory that the Rio Grande, as it existed on September 9, 1850, was the boundary line between the State of Texas and New Mexico, in so far as that line was formed by the river, and the controversy upon the trial concerned the location of that river as of the date named. Testimony was heard as to the general nature of the river, which the record shows to have been that the river flowed through an avulsive bed in this area. At the October Term, A. D. 1923, after the testimony had been taken and after the case had been briefed, and was awaiting submission, L. M. Crawford obtained permission to appear as amicus curiae. The amicus curiae suggested that the land upon which the El Paso Country Club was located was formed by accretion from the river, as Texas had contended it was located in 1850. Request was then made that the court permit a re-examination of R. J. Owen in order that he might be interrogated in regard to accretion. This wit-

ness had been the principal witness for the State of Texas and having testified for days in the original hearing, no questions had been asked the witness and no statements made by him touching the question of accretion, but it was proposed that this witness be re-examined for the purpose of questioning him as to accretion. The court granted permission to re-examine the witness and additional testimony was taken, which was begun on May 5, 1924, and concluded on June 20, 1924. The State of Texas protested against the evidence of witness Owen on the question of accretion on the ground of its immateriality under the pleadings in this cause. (Record, Additional Testimony, p. 14.) Witness Owen in his testimony on the question of accretion made but one statement in regard thereto, which is as follows:

"SO I SAY FROM AN EXAMINATION MADE IN THAT WAY, IT LOOKS AS THOUGH THE OLD RIVER MAY HAVE EATEN ITS WAY OVER THERE BY EROSION AND ACCRETION, AND ANOTHER THING, WHERE THE OLD RIVER STRUCK THE FOOT-HILLS FURTHER WEST IT WAS TURNED OUT WITH GREAT FORCE, I PRESUME, ON ACCOUNT OF THE MOUNTAINS TOWARD THE EAST IT MAY HAVE GONE AND REACHED OVER TO THE OTHER SIDE OF THE COUNTRY CLUB, AND THERE STRUCK A PERMANENT SOIL AND MAY HAVE FORMED IN THAT WAY, BUT SO FAR AS IT BEING ACCRETIVE I BELIEVE I HAVE ANSWERED AS FAR AS I COULD BECAUSE I HAVE MADE NO EXAMINATION OF THE SOIL, HAVE HAD NO TESTS MADE OF THE DIFFERENT SOILS. I HAVE NOTHING TO FORM SUCH CONCLUSIONS FROM, NOR FACTS FURTHER THAN I HAVE STATED AND I DO NOT THINK I

AM ABSOLUTELY QUALIFIED TO STATE. THAT'S ABOUT ALL I CAN STATE ABOUT THAT." (Record, Additional Testimony, p. 16.)

After the witness had been examined about many other matters the testimony closed, but positively the statements here made are the only statements in the entire record, including the additional testimony, relating to accretion. It should be borne in mind, however, that all of the record shows that this was a river given to frequent periodical avulsions. (See Record, Additional Testimony, p. 81.)

The uncontradicted testimony of plaintiff's and defendant's witnesses, the allegations of the parties in the pleadings, the finding of the Master in his report uniformly establish as a fact final and conclusive, upon which this court must base its judgment, that the changes in the channel of the Rio Grande from its location as fixed by the Master in his report as of September 9, 1850, are avulsive changes, that the normal rule and habit of the river in the locality in question is to make avulsive changes and that the exception is accretion, no instance of which is proven in the record. The witness most relied upon by New Mexico is Engineer Post, who testified "There are old river beds or indications of old river beds in various parts of the valley, extending in a southerly direction through the valley. The map that I have made as indicating the location of the old river bed shows the river bed of 1850 as pointed out to me by witnesses. If I had started to survey old river beds throughout the valley, I would not be through surveying yet." (Quotation, Master's Report, April 21, 1926, page

30.) This witness' testimony is in accord with other witnesses for the plaintiff.

R. J. Owen, long-time witness for the defendant, State of Texas, testified as follows:

Question: "Are there not numerous places in the valley with just as distinct old river channels as that, where no one remembers when the river was there?"

Answer: "Yes, sir; in places."

Question: "Is it not true, Mr. Owen, that during flood-time and before the Elephant Butte Dam was finished, and the water controlled by the Reclamation Service, that just after these floods you would find numerous channels in the valley, in different places?"

Answer: "Yes, sir; it is."

Question: "And those channels would have all the aspects and appearances of real live river channels—yet they carried only flood waters?"

Answer: "That is true. But yet, not as large as a real channel."

Question: "But yet as large as a real channel would be, a few seasons later, after it had ceased to carry water?"

Answer: "Oh, yes; I should say so. That is a matter of judgment and experience; but I would say so."

Question: "You would have no difficulty whatever, when you were making these surveys, in going north of the Country Club and finding a river bed almost anywhere, would you?"

Answer: "No. I could not say just where; but you would find them in most any direction that you went."

Question: "And that is true, also, in recent years, is it not?"

Answer: "Yes, sir."

Question: "And whether you went by team or by the railroad, and crossed the river, you would say it was the river bed?"

Answer: "Yes, sir. During the time that I was working on this case, before, you had me survey all the old river channels I could find, up there in that country; and there were so many of them that we didn't even map them all; but only took the field notes of them."

Question: "If there were some in the south, that we had been hunting for, we could have found them?"

Answer: "Yes. We found so many of them that we got tired, and quit."

Question: "Now, all these things have been very materially changed, since the ditches have been built, and the government has assumed control of the water and ditches up there?"

Answer: "Yes, sir; they have all been changed; and the people are using grading machines, and fresnos, and are filling up these old places and leveling them up." (Additional testimony, pages 40-41.)

The Master in his report (see page 80) after reciting the testimony of the geologist from the Parke Expedition in 1854-1855, the report of the Secretary of Interior of 1905, and the testimony of Van Patten, a witness for the plaintiff, Henry A. Kezer, and Richard J. Owen, concludes "The Rio Grande in this locality has been a river bed subject to avulsive changes. * * * Such is the general nature of the habits of the Rio Grande." (Master's Report, pp. 80-81.)

It is submitted as an established, admitted, proven and found fact that any channel of the Rio Grande River in the locality east of the Country Club occupied an avulsive bed

in 1903-1905. The supplementary or conditional finding of the Master from the erroneous assumption that accretion modified the boundary as it existed on September 9, 1850, and that, therefore, the El Paso Country Club is land within the State of New Mexico in the Santa Theresa grant, is admittedly not based upon either testimony or facts proven in the case. It is expressly based on the fiction of presumption, a rule of law which operates only in the absence of testimony and facts. Necessarily the presumption is not available to transfer this property owned by Texas people under the sovereignty of this State in the presence of the uncontradicted testimony of the witnesses, the pleadings and admissions of the parties, the findings of the Master to the contrary notwithstanding.

Let it be said that the conditional and supplementary finding of the Master, of which we complain, to the effect that the Rio Grande formed a bed to the east of the Country Club in 1903 through an accretive process from the bed of the river as found by the Master in 1854 to the west, is based upon a mere presumption in law, there being no supporting facts. In contradiction of this it is pointed out that the testimony requires a finding that such bed of 1903-1905 was reached by avulsion. As heretofore stated, there is testimony of innumerable channels in this locality, among which are the following: The Master calls attention to the bed of this river shown in W. W. Follette's map of 1889, some miles west of the location of the bed in 1903 or 1905. (Master's Report (a), p. 83.) Engineer Owen, in his original testimony, shows on defendant's Exhibit 65 a continuous river of 1905 at the west foothills of the valley about two miles west of the Country Club. (See Defendant's Exhibit 65.) (Record, Vol. 6, p. 3373.) Engineer Owen, in his ad-

ditional testimony of 1924, describes the existence of an apparent old channel of the Rio Grande extending north, east and south around the Country Club property. The substance of this testimony is that this last mentioned river bed resulted from a flood occurring in the summer of 1905. R. J. Owen further testified that in 1910 the Rio Grande occupied a channel some one-half mile to one mile west of the Country Club building and west of the river as located in 1903; the same witness in testifying in the original hearing, located a river in this locality as it existed in 1914. (Record, p. 3373.) This river as thus located is shown upon defendant's Exhibit 65 and on all defendant's maps, and is west of the river of 1903, 1905 and 1910, and almost in the position of the present Rio Grande River as shown upon maps sought to be introduced in the additional testimony and motions filed in 1924, 1925 and 1926.

In this maze of testimony at least five independent beds of the river from 1889 to 1914, all admittedly avulsive, the Master picks out by legal presumption the one claimed to have existed in 1903 as constituting the boundary line between the sovereigns and the adjacent land owners, supported only by the location shown upon the French map referred to in the Master's Report, which is shown by the location of a bed on the French map unidentified, unproven, incapable of anything like exact location upon the earth's surface from any landmarks, field notes, surveys or monuments appearing upon it.

Assuming that the river as it flowed in 1889, mapped by the International Water Boundary Commission, shown in the Master's Exhibit No. 2, also carried with it the boundary line between Texas and New Mexico, the presumption indulged in by the Commissioner is that since 1889 the

river moved eastward to the position described in 1903, north, east and south of the Country Club in such a way as that it carried the boundary line with it. Admittedly, there is no proof of such change by slow and gradual processes. It is not shown how many changes or beds the river had occupied between 1889 and 1903. It is not shown that the bed described as running north, east and south of the Country Club of 1903 was a part of a stream carrying waters of the river. If there are physical facts that such accretive change was not made the presumption cannot be indulged. Ultimately, the question is, whether or not within thirteen years the present land between the river of 1889 and 1903 continuously and gradually was reducing from the land to the bed of the river and then gradually and continuously rebuilt to its present described existence. The uncontradicted testimony is that this very land is substantial, solid, turfed soil, on which existed prior to 1900 trees of an average of eighteen inches in diameter. There are many larger ones. (Record, Additional Testimony, pp. 9, 82, 83, 96, 108.) There are stumps indicating the continuity of this growing forest and the previous existence of such trees. The uncontradicted testimony is that this very land presumed to have been milled into sand during a period of fourteen years, from 1889 to 1903, supported a forest from which timbers have been continuously taken. The mute testimony of trees from fifteen to twenty-five years of age in 1900, and the prior existence of a forest upon this land, as evidenced by old stumps still remaining at this time, conclusively establish as a physical fact the impossibility of the presumption made. If the land lying between the bed of the river in 1889 and the bed of 1903 in this locality was reduced from a forest to

sand and occupied by waters and then rebuilt into soil, this must have been accomplished within a period of thirteen years in such a manner as that it could support in 1900 a forest of trees of the average of at least twenty-five years of age. The reducing of the soil to river bed of necessity deprived it of its fertility, and the restoration of the land required a sufficient time to establish its fertility. The uncontradicted testimony of witness Kezer and witness C. F. Jones (Additional Testimony, p. 108) puts the foregoing facts beyond question. This very land thus presumed to have been reduced to sand and rebuilt as early as 1900 supported a forest supplying timber and fuel for the community and mistletoe for Christmas decorations, these witnesses stating that mistletoe is gathered from aged trees only. Such a physical fact existing will not allow or permit of the deduction or legal presumption of the accretive change found by the Master.

The Special Master, recognizing that there was little testimony in the case pertaining to accretion and avulsion, concluded that, as it was shown by the French map, that the course of the river ran around to the east of the Country Club, that the presumption is that this river reached that position shown on the map by accretion, and further finds that the changes in the course of this river in this section have been accretive between 1852 and 1904, basing his conclusions upon the case of Oklahoma vs. Texas, 250 U. S., 606, 638, and holds that the party asserting an avulsive change has the burden of proof. The court said in that case:

> "Common experience suggests that there probably have been changes in this stretch of the Red River since 1821, but they cannot be merely conjectured.

> The party asserting material changes should carry the burden of proving them whether they be recent or old. Some changes are shown here and conceded; others are asserted on one side and denied on the other."

It must be noted in this case that the land claimed on account of accretion should carry with the claim the burden of showing that the river formed this land by accretion, for it has been positively shown in the testimony that this is a river of avulsions, and that from beginning to end if this is accretion it is the only instance of accretion since 1850. Therefore, we assert that the party setting up the formation of land contrary to the habits of the river must assume the burden of proving his contentions. The State of New Mexico asserts in its petition that the boundary as it existed in 1850 had not been changed. There is not a word of testimony in the record that the river had acquired any other habit than the habit of avulsion. The conclusion should not be assumed, but the burden of showing the unusual character of formation of the river should be proved by New Mexico. As stated above, the only testimony relating to accretion is that of witness Owen wherein he says that this land, upon which is located the Country Club, might have been formed by accretion, and in the same paragraph he says that it also might have been formed by avulsion. He then states that he is not qualified to testify and has only given an opinion based upon a view of the ground.

Therefore we assert that there is positively no testimony worthy of consideration touching the question of accretion. The Master presumed that the river reached the position that it occupied in 1903 by accretion, but there is no testi-

mony whatever that denies the proposition that this river might not have reached that position just as witness Owen says it might, which is in the usual and ordinary way the Rio Grande acquired its channels, to-wit, by avulsion. Regardless of this fact, the State of New Mexico, eight years after the French map was made, adopted its Constitution, in which, as stated before, the boundary line was declared to be the river as it existed on the 9th day of September, 1850, and further averred that it had not changed its position. Be it also remembered that it was ten years after this map was made, showing the location of the river in this area, before New Mexico instituted its suit in which it claimed the boundary line to have been where the river existed on the 9th of September, 1850, and wholly disregarded any location of the river at any other time than on the 9th of September, 1850.

We, therefore, respectfully submit that the Honorable Special Master in this case committed a grievous error, first, when he considered the subject of accretion under the pleadings in this case, and second, when he presumed that the river acquired the position shown in the French map by accretion. On the contrary, he should have presumed, if called upon for a presumption, that the channel of the river was a channel formed according to the customs and habits of this particular river, shown in one position today and in another position tomorrow.

It is further submitted to the court that if the conditional recommendations of the Master are sustained, the case would be placed in a most unique condition. New Mexico has throughout contended in its pleadings and proof that the boundary line is formed by the river as it existed in 1850, and has remained unchanged, and

has contended that its pleading map correctly shows that river. The amicus curiae entered the case, as an aid of New Mexico, and took a wholly different and inconsistent position from that of New Mexico. The position of the amicus curiae is inconsistent with the position of New Mexico, in that the amicus curiae adopts the location of the river as contended for by Texas, and insists that from that position the river has moved by erosion and accretion to a position east of the Country Club and builded up by accretion the area spoken of as the Country Club. In this, the amicus curiae has presented to the court an issue not made by the pleadings in this case. While New Mexico contends for a location of the river as shown in its pleading map, the amicus curiae is contending on behalf of New Mexico for the river as located by Texas in its pleading map, but that from that position the river has moved and built up land in New Mexico by accretion. It is submitted that this court will not hear either New Mexico or the amicus curiae to urge propositions inconsistent with their pleadings. In this particular, the conditional findings, conclusions, and recommendations of the Master are inconsistent with the pleadings and contentions of both parties to this suit.

Conclusion.

It is, for all the reasons hereinbefore stated, submitted that the court should hold that the recommendations herein excepted to are in error and that under the law and the facts the river as it existed in 1850 now forms the boundary line between the State of Texas and New Mexico, and that said river of 1850 has by the evidence been proven to be as located in the Master's Report, ex-

cept wherein he takes into consideration the doctrine of erosion and accretion; and it is further respectfully submitted that on the pleadings and proof heard that judgment should be entered herein establishing the boundary line as contended for by the State of Texas.

Respectfully submitted,

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FINDINGS OF THE SPECIAL MASTER.

EXHIBIT A.

VI.

Accretion and Avulsion.

The location and course of the river in 1852 being as thus found by me, the question next arises: what, if any, accretive or avulsive changes occurred prior to the date of the filing of the bill of complaint in 1913? But there is a preliminary question for consideration, namely: whether the ordinary rules of law as to accretion and avulsion in State boundary controversies are applicable in this particular case? For here, unlike the usual case, each party in its pleadings has made the specific allegation that the channel of the Rio Grande as it existed in 1850 was "*and now is* the boundary between the State of Texas and the State of New Mexico" (italics mine); each party asks that the boundary line be decreed to be the middle of the channel of the Rio Grande as it existed in 1850 and as shown on its respective pleading map; and the plaintiff specificially alleges that "said boundary has remained unchanged to the present time." The defendant contends that these pleadings constitute an admission that all changes in the river since 1850 had been avulsive; and that throughout the hearing (from November 10, 1913, to November 26, 1918, when the case was closed), the case was tried on the theory that the location of the channel of the river of 1850 was the only issue in the case, that all changes since 1850 had been avulsive, and that the question of accretion was not involved. I assume that private litigants, in an ordinary case, might,

under similar pleadings, be estopped from controverting allegations so pleaded. But this court has frequently stated that suits between States are not to be treated in a technical manner, so that, as was said in Virginia vs. West Virginia (1914), 213 U. S., 117, 121, "there may be no room for the slightest inference that the more restricted rules applicable to individuals have been applied to a great public controversy, or that anything but the largest justice after the amplest opportunity to be heard has in any degree entered into the disposition of the case." I consider that the allegation in the pleadings that the channel of the river as it existed in 1850 "now is the boundary" is to be interpreted as meaning the channel of the river as it existed in 1850 subject to the well settled principles as to accretion and avulsion which this court has laid down in State boundary cases. (See also Missouri vs. Nebraska (1904), 196 U. S., 23, 36, 37.) Such must certainly have been the interpretation placed upon the pleadings by this court; for, by its order of April 14, 1924, it expressly permitted the plaintiff to take additional testimony on the subject of accretion, with reference to a limited section of the river (flowing around what is known as the Country Club property); and its order was based on a motion by the plaintiff, accompanied by an affidavit that the additional testimony of R. J. Owen was desired for the specific purpose of proving an accretive change. The preliminary question, raised by the defendant, being thus disposed of, I find the following facts with respect to accretive and avulsive changes in the course of the river, between 1852 and 1913 (the date of the filing of the bill of complaint).

While some evidence as to accretion has been intro-

duced by each party, incidentally to other proof, the bulk of the evidence seems to bear upon the question of avulsion. The Rio Grande in this locality has been a river peculiarly susceptible to avulsive change. Its channel in normal times is very shallow, carrying small amounts of water. Its bed is through a sandy soil. Prior to the building of the Elephant Butte Dam (in the years 1912-1915) 140 miles north of El Paso, there were almost annual floods in April-May caused by the melting of snow in the mountains; and frequently, in September and October, there were other floods caused by cloudbursts or heavy rainfalls. The water from these rainfloods poured down arroyos from the sides of the river, bringing much sand and detritus, and, on occasions, it filled up the shallow main channel of the river or created bars or obstacles, so that, when the next spring flood occurred, the river on subsiding sought a new channel. The river in flood times carried much detritus and 20 to 25 per cent of silt or mud, which, in subsidence, was deposited on the banks, but which was also, at times, so deposited in the former channel as to oust the river into a new channel. In 1854-1855, the geologist of the Parke Expedition reported that "the variability of the current and the body of water carried down leads to a continual shifting of the bed of the river." An examiner of surveys in the General Land Office, detailed to make an astronomical investigation of the Texas, New Mexico and Oklahoma boundaries, reported to the Secretary of the Interior, in 1905, that "during the dry season, as in November, 1903, there is almost no flowing water; during freshets the stream is often several miles wide, and in resuming a normal flow, often settles into a channel a

considerable distance from its last previous channel." (1) Van Patten, a witness for the plaintiff, testified that "It was changing backwards and forwards in '64 to '84. * * * since '64 it has been changing backwards and forwards all the time." Henry A. Keizer, a witness for the defendant, testified that "when it was high and then would go down, we never knew where we were going to find the river." Richard J. Owen, engineer witness for both plaintiff and defendant, testified that changes in the river course usually occurred at flood times, and that it was a common occurrence to find the river channel greatly changed after the flood waters had receded. (2) The presence of the innumerable old channels through the valley, testified to by witnesses for both parties, constitutes ample proof of frequent avulsive changes; though not all these channels were remnants of past main channels, many of them being merely minor channels through which the flood waters drained off. Many of the old channels, once occupied by the river, became filled up with sand brought down by the river itself or by the torrents from the arroyos from the margin of the valley.

Such is the general nature of the habits of the Rio Grande. But it is not easy, from the evidence, to determine in all instances whether any particular change in the river's course was or was not avulsive. Under these circumstances, I have assumed that this court, in Oklahoma vs. Texas, 250 U. S., 606, 638, has held that the party asserting an avulsive change has the burden of proof:

"Common experience suggests that there probably have been changes in this stretch of the Red River since

1821, but they cannot be merely conjectured. The party asserting material changes should carry the burden of proving them, whether they be recent or old. Some changes are shown here and conceded. Others are asserted on one side and denied on the other."

Where it is proved that the river had a certain position in one year and another position in a subsequent year, there is a presumption that it reached its later position by accretive change, unless it is proved that the change was caused by avulsion. I further assume that avulsion cannot be proved by mere conjecture, probability, or general habits of the river, but that it must be established by definite evidence.

In considering the evidence in the case on the subjects of accretion and avulsion, it will be convenient to take up separately (a) the course of the river from the 32d parallel to the southwest corner of the Canutillo Grant; (b) its course from the southwest corner of the Canutillo Grant to the southwest corner of the Country Club property; (c) its course from the southwest corner of the Country Club property to the Piedras Parades and Frontera, and from Frontera to the present International Boundary Line.

(a)

As to the first section of the river from the 32d parallel to the south line of the Canutillo Grant, there is considerable evidence both of accretion and avulsion.

Beginning at the 32d parallel, it appears (as discussed supra, p. 76) that between 1859 when Clark made his survey, and 1860 when Mills surveyed Texas Survey No. 161, the river had shifted to the east 172 feet, i. e., Mills found Clark's Monument No. 1 to be only 428 feet (154

varas) from the river, instead of 600 feet. I find that this change was accretive.

Beginning at the north end of the Salazar-Diaz Survey (at Station R XIII) which is located about four-fifths of a mile south of the 32d parallel I find that there is evidence of accretive changes in the course of the river as located by that survey, both to the eastward and to the westward. These changes are apparent from the location of the river as it is shown as a western boundary of various parcels of land on the plats accompanying Texas Surveys Nos. 35, 34, 163, 164, 165, 171, 172; and on the plat accompanying Texas Survey No. 172; and on the plat accompanying Survey No. 173, which is Anson Mills' Survey of the Canutillo Grant. (1) These accretive changes occurred between the years 1852 when the Salazar-Diaz Survey was made, and 1860 when most of the other surveys were made. Whether the plats above referred to are on sufficiently large scale or in sufficient detail to make it possible for engineers now to trace on the ground the accretive changes shown on them it is a question which I find it impossible to decide.

It is agreed by both parties, and I so find, that, in 1862 or 1864, there was a violent avulsive change in the course of this section of the 1852 river, by which the river was swung over to the westward, nearly to the extreme western margin of the valley; and this avulsive change apparently applied to its course from the 32nd parallel to as far south as the Cobreno Bend and to the southwest corner of the Canutillo Grant. (1) Later, after 1864, and notably in 1884, there were avulsive changes which swung the river back again to the eastward. (2) In 1889, it is certain that the river was flowing back to the east in approximately the

position shown by the Salazar-Diaz Survey, except that on Surveys 35 and 34, it had extended still farther east nearly to the Santa Fe Railroad track. In that year, also, there existed a long slough or minor channel, filled with water, and flowing straight down the eastern margin of the valley in almost exactly the course in which the plaintiff's witnesses located the river of 1850. All this appears on a map, dated September, 1889, which was not introduced in evidence by either party, but which is found on page 330 of the government document entitled "Department of State, Proceedings of the International (Water) Boundary Commission, United States and Mexico, Treaties of 1884 and 1889, Equitable Distribution of the Waters of the Rio Grande, United States Section, Anson Mills, Brig. Gen. U. S. A. retired, Commissioner; W. W. Follett, Consulting Engineer; W. W. Keblinger, Secretary, Washington, Government Printing Office (1903), Vol. 2." I file with this report a photostatic copy of this map (in two sections) marked Master's Exhibit No. 2.

Before 1903, the river had swung back again to the extreme western margin of the valley, as appears on a government map, being map No. 4763 in the Hydrographic Branch of the United States Geological Survey, entitled "U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr., in charge, J. A. French, Topography by E. D. Hendricks, Triangulation by G. E. Stratton (1903) Scale 1 to 12,000." This map was not introduced in evidence, although a map which was probably based upon it was offered by the plaintiff as plaintiff's Exhibit No. 281 (Record, Additional Testimony, p. 66) and a partial copy of it was introduced as plaintiff's Exhibit No. 21. I file with this report a photostat copy of

this map (in four sections), marked Master's Exhibit No. 3. Between 1903 and 1912, the river again swung back to the eastward and to the extreme eastern margin of the valley, where it was flowing in 1912-1914.

I find that all these changes after 1862 were avulsive. No changes, whether accretive or avulsive, can be held to affect the course of a river as a legal boundary, subsequent to the first avulsive change after it became a boundary (unless the river returns to its former bed). Nebraska vs. Iowa (1892), 143 U. S., 359, 370; Arkansas vs. Tennessee (1918), 246 U. S., 158, 173. I conclude, therefore, that for the section of the river extending from the 32nd parallel to the south line of the Canutillo Grant, the boundary line between Texas and New Mexico was not changed after 1862-1864, but that, owing to the avulsion of 1862-1864, it remained and now remains as found by me on page 76 of this report, subject to the specific accretive changes described by me as taking place prior to 1862-1864, so far as such accretive changes can now be identified or fixed upon the ground.

(b)

The portion of the river from the south line of the Canutillo Grant to the southwest corner of the Country Club property was that regarding which this court, by its order of April 14, 1924, allowed the plaintiff to introduce the testimony of Richard J. Owen as to accretive changes. This testimony was confined, according to the statement of the witness, to the river "between the southwest corner of the Canutillo Grant and the line across the river at the Country Club bridge—extending around the neighborhood of the present Country Club grounds, and turning to the west and intersecting the river," at station 32 as shown on

Owen's map (Plaintiff's Exhibit 280). The plaintiff maintains that, if the river ever flowed in 1852 in the course alleged by Texas, then the course in which it was flowing in this locality, prior to 1905, was the result of an accretive change; and more particularly that it was due to accretion and not to avulsion that the river made the large bulge or bend to the eastward which appears on the Owen map, extending out from the western margin of the valley and crossing Texas Surveys 262, 261, 260, 259, 157, 156, in an almost due easterly direction, across the valley until it reached a point about one-half a mile west of the railroad track near White's Spur on the eastern margin of the valley, and then bending back to the western margain again. (This bend may be conveniently seen as shown in yellow ink on the full size copy of Texas map No. 3, defendant's Exhibit No. 65, reduced in size in the record, which I have filed with this report as Master's Exhibit No. 4.) As it was admitted by both parties that, in 1905 and 1909, the river made avulsive changes here back to the west, the plaintiff contends that this Country Club bend, being the result of accretion, remains now the boundary line, unaffected by the 1905 and 1909 avulsions. The defendant contends, on the other hand, that the river did not flow, prior to 1905, in the bend as shown on Owen's map; and, further, that if it ever did so flow, it reached that location by avulsive and not accretive change.

Before discussing Owen's testimony, I call the court's attention to the facts that there were evidently changes in the course of the river, between the Salazar-Diaz Survey in 1852, and the years 1859-1860 when Texas Surveys 154, 155, 156, 157 and 158 were made; and also between the years 1859-1860, and the year 1871 when Texas Sur-

veys 259, 260, 261 and 262 were made; and between the years 1859-1860, and the year 1873, when Texas Surveys Nos. 155 and 157 were resurveyed. As no definite proof of avulsion, however, has been introduced in evidence, I find that these changes in this section of the river were accretive (though it is probable that they are not now capable of being definitely traced or located). Between 1871 and 1904, it seems probable, from the known habits of the river, that there were avulsive (as well as accretive) changes in the course of this section of the river; but no definite proof of avulsion was introduced in evidence, until the testimony introduced under the order of this Court of April 14, 1924. Under that order, the plaintiff sought to prove that the bend of the river back to the eastward around the Country Club property was caused by accretion. The defendant sought to prove that the bend was the result of avulsion. The plaintiff offered the testimony of Richard J. Owen. This witness testified under somewhat singular circumstances; for he had previously testified as a witness for the defendant in 1913-1914, and as an engineer in its employ; he had then testified as to extensive surveys of the whole valley made by him for the purpose of this suit, and as to the tracing out by him on the ground of an old river channel or river bed, "very clear and distinctly marked," running along the western margin of the valley which he termed the "River of 1905," i. e., an old channel occupied by the river previous to 1905, and abandoned in 1905; this "River of 1905" he had set forth on a map termed "Map No. 3 Texas." (Defendant's Exhibit No. 65); when he testified in 1924 (ten years later), being then placed on the stand by the plaintiff, he stated that he considered

himself "as absolutely neutral character * * * not testifying for either the plaintiff or the defendant"; that he reaffirmed all the testimony which he had given in 1914; but that his previous testimony had not applied specifically to the location of the river of 1905 at this point; that after he testified for the defendant in 1914, he was employed by L. M. Crawford (the amicus curiae in this case), in 1923, to survey land claimed to be owned by Crawford; that, in making this survey, he followed the field notes contained in a previous survey and the lines laid down in certain deeds to Crawford from the Santa Teresa Land Company in 1911; that he checked up the field notes at different stations which he knew; that he also followed on the ground, and retraced, certain depressions or sloughs or old river beds, which corresponded with the field notes and with the descriptions in the deeds; and that his survey, as so made, convinced him that the river of 1905 (i. e., the river as it flowed prior to 1905) followed the course in this locality which he platted in September-October, 1923, on his Map (Plaintiff's Exhibit No. 280, Record, Additional Testimony, 66), and that the river of 1905 did not flow in this locality, as shown on his previous Map (Defendant's Exhibit No. 65). He did *not* testify, however, that he himself had actually seen the river running, prior to 1905, around the bend shown on his Map or to the east of the location of the Country Club. (1) In his affidavit, supporting the motion to take his additional testimony, he had stated on oath that "the indications on the ground" were that "the river, if in 1852, it occupied the position claimed by Texas, then it changed its position to the position occupied by it in 1905, within the territory above in-

dicated by gradual changes through accretion, and not by an avulsive change." In his testimony, he expressed his opinion that the change was accretive but admitted a possibility of an avulsion. He based his opinion on the aspect of the territory in question and on the lack of old channels or old cottonwood trees west of the bend, although he stated that he had made no test or examination of the soil, i. e., to determine its nature and the manner of its deposit.

In addition to Owen's testimony, the plaintiff offered in evidence certain deeds to Crawford and also a "Map of the United States Reclamation Service Rio Grande Project, New Mexico-Texas, Map of Mesilla Valley, showing various known river channels," dated September, 1914. (2) In view of the fact that the order of this court of April 14, 1924, limited the plaintiff to the taking of the testimony of Owen, I find that these deeds and the Reclamation Service map were inadmissible as evidence of any fact at issue, but that they were admissible solely for the purpose of allowing Owen to testify that the line of the 1905 river on his own map appeared to correspond with certain lines in these deeds and on the Reclamation Service map.

In rebuttal to Owen's testimony, the defendant introduced testimony of four witnesses. One had long lived within a few miles of the Country Club property and the others were familiar with it through passing, hunting, and fishing for many years in that locality. They testified that they had never seen any main channel of a river prior to 1905 in the position shown on Owen's map and east of the Country Club house. They testified further as to the existence of an old slough or sloughs or river beds east of the

Country Club; also that there were old cottonwood trees west of the Country Club in the years prior to 1905. (1).

The evidence introduced by the parties as to accretion and avulsion is distinctly unsatisfactory. The plaintiff was restricted by the order of this court to the evidence of one witness; and in view of the evidence in the case as to the habits of the river and as to the presence of numerous old channels in the river valley, I give very little more credit to the ability of a surveyor, than to the ability of the Indian witnesses, to identify any particular depression, slough or channel as being that in which the river flowed as its main channel in any particular year or years, unless the witness has a clear memory as to the actual location of the river, or unless the identification is supported by more or less contemporaneous maps prepared under such circumstances as to be properly credible. The defendant, on the other hand, did not introduce any maps showing the river at this point prior to 1905, although such maps, it seems to me, must have been available; and it would appear probable that there must have been other witnesses than those offered, more fully acquainted with the locality.

Fortunately, however, the court may take judicial notice of certain maps which throw light upon the question. I call its attention to the Geological Survey map in 1903 described by me (supra, p. 84) and filed herewith as Master's Exhibit No. 3. This map shows the river in 1903, as located in substantially the identical position shown on Owen's map (Plaintiff's Exhibit No. 280). I assume that the court may also take judicial notice of the map offered in evidence as Plaintiff's Exhibit No. 281, which is also a government map of this Mesilla Valley "showing various known river channels," on which the course of the river

is evidently copied from the Geological Survey map above referred to; and see also a publication of the Geological Survey entitled "Water Resources of the Rio Grande Valley in New Mexico and their Development, by Willis T. Lee," House Document No. 73, 59th Cong., 2nd Sess. (1907), in which there appears a map of Mesilla Valley, showing this same large bend opposite White's Spur (p. 42).

I call especial attention to the map of the river as it flowed in 1889, contained in the report of the International (Water) Boundary Commission, described by me (supra, p. 83) and filed herewith as Master's Exhibit No. 2. This map shows that, in 1889, there was a bend or bulge at the point shown for the river of 1905 on Plaintiff's Exhibit 280; but that this bend had not extended as far east as in 1903. In 1889, it had only crossed Texas Survey 157, whereas in 1903, it had moved to the eastward three-quarters across the adjoining Survey 156. This would clearly seem to denote a progressive accretive change to the east. (See Oklahoma vs. Texas (1923), 260 U. S., 606, 638-639.)

I do not find any evidence of sufficient weight to establish the fact of an avulsive change in this locality prior to 1905, in view of the testimony of Owen and of the above maps; and I find, therefore, that the changes in the course of this section of the river have been accretive between 1852 and 1904, and that, since the first proved avulsion occurred after 1904, the location of the river in that year should be taken in fixing the boundary. This location, I find to be that shown on the Geological Survey Map in 1903, described by me (supra, p. 84) and filed by me herewith as Master's Exhibit No. 3. (1)

(c)

As to the section of the river running from the southwest corner of the Country Club property south to Piedras Paradas and from there to the point known as Frontera (which is the southern end of this portion of the Salazar-Diaz Survey known as R. X., Station 1), and from Frontera to the International Boundary Line, inspection of the Texas Surveys and Maps to which I have referred in my report makes it evident that there have been many changes in the course of the river, between 1852 and 1913. There is evidence that some of these changes were accretive. From the known habits of the river, it is probable that others of these changes were avulsive. There is no evidence in the case, however, sufficiently clear or definite to establish the fact of an avulsive change or changes here. Consequently, I find that all changes, since 1852, have been accretive, and that the location of the river as it flowed in 1913 when the bill was filed should be taken in fixing the boundary.

VII.

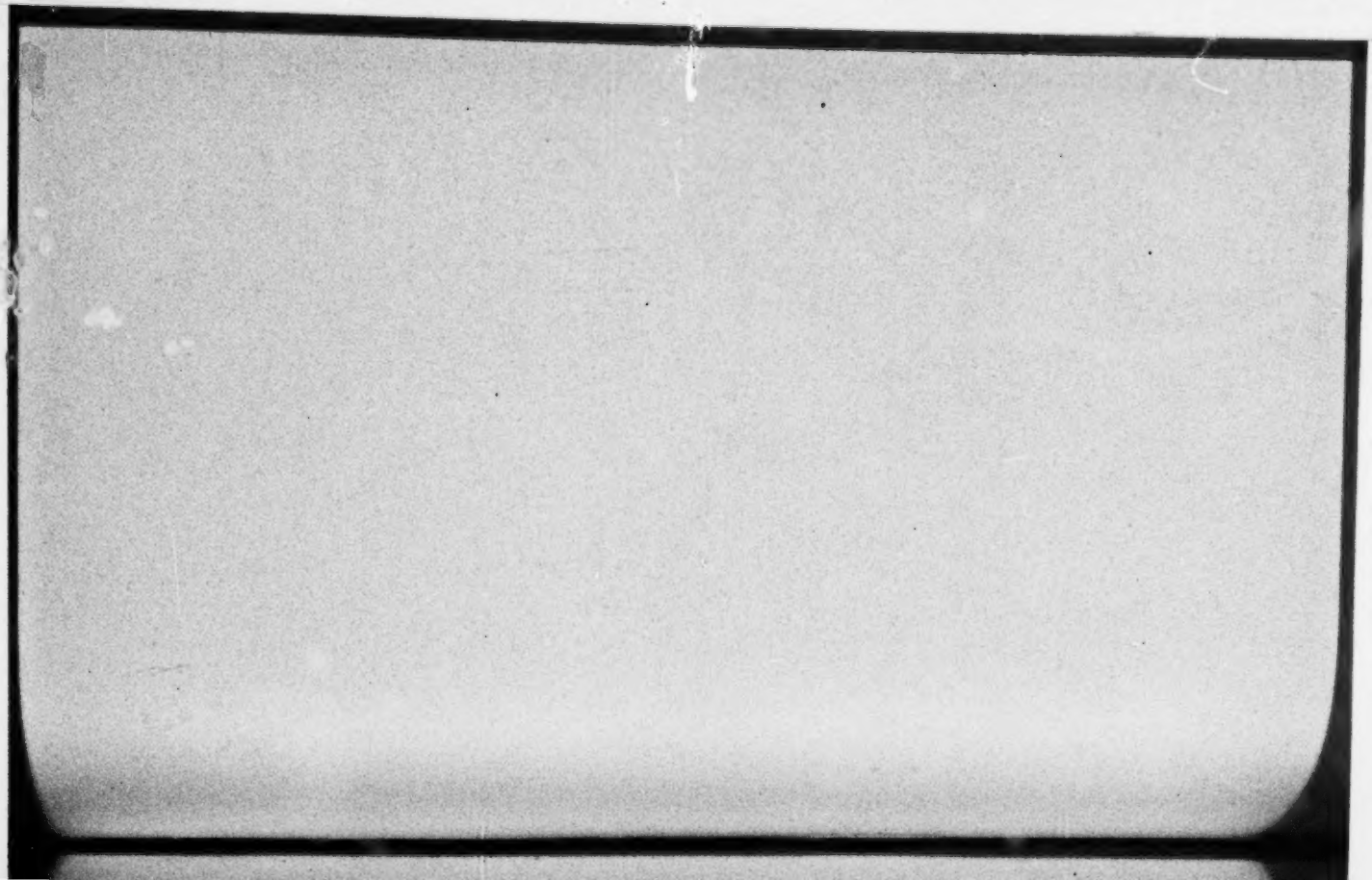
Final Conclusions and Recommendations for a Decree.

Upon all the evidence, I find that the true boundary line between the State of New Mexico and the State of Texas, on January 31, 1913, when the bill of complaint was filed in this case, was as follows, beginning at the thirty-second parallel north latitude and running south to the parallel of thirty-one degrees forty-seven minutes:

(a) * * *

(b) Thence in a southerly and southwesterly direction, the middle channel of a river whose west bank is

shown by the triangulation, traverse, field notes and other notes and comments in the Salazar-Diaz Survey of 1852, beginning at the northernmost point of said survey at R XIII, and following said survey as far south as the southwestern corner of the Canutillo Grant, subject to such accretive changes as occurred prior to 1862 and as are shown on the plats and field notes of Texas Surveys Nos. 35, 34, 163, 164, 165, 171, 172, 173, so far as such changes are now capable of identification and reproduction upon the ground.

(c) Thence in a southerly, southeasterly and southwesterly direction, the middle channel of the river as shown upon the map No. 4763, in the Hydrographic Branch of the United States Geological Survey entitled "U. S. Geological Survey Reclamation Service Rio Grande Project in New Mexico Irrigable Lands, Engr. in charge, J. A. French (1903)," beginning at the southwest corner of the Canutillo Grant and running to the southwest corner of the Country Club property at Station 32 on the map of Richard J. Owen, constituting plaintiff's Exhibit No. 280.

(d) Thence in a southeasterly direction, the middle channel of the river as it was flowing on January 31, 1913, from the last named point to the intersection of the river with the International Boundary Line at the parallel of thirty-one degrees forty-seven minutes north latitude.